

County Borough



of Blackburn.

ANNUAL REPORT

UPON THE

Health of Blackburn

For the Year 1930,

BY

V. T. THIERENS, M.B., Ch.B. (L'pool), D.P.H. (Cambridge),

MEDICAL OFFICER OF HEALTH,

ADMINISTRATIVE TUBERCULOSIS OFFICER,

MEDICAL SUPERINTENDENT OF THE CORPORATION ISOLATION HOSPITALS

AND MUNICIPAL MATERNITY HOME,

SCHOOL MEDICAL OFFICER.

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Health and Housing Committee.

THE MAYOR (LUKE BATES, Esq., J.P.)

ALDERMAN F. J. GREEVES, J.P., L.R.C.P., CHAIRMAN.

ALDERMEN—

BURKE, FISH, HEYES (CHAIRMAN HOUSING SUB-COMMITTEE), JOHNSON
AND WATSON.

COUNCILLORS—

BEARDWOOD, H.	DOWDALL	HURLEY
BLACKSHAW	GREENWOOD	KIRBY
CALVERT	GRIMSHAW, W. H.	LEAVER
CAMPBELL	HAMMOND	RILEY
COTTON	HARGREAVES, F.	SHORROCK
CRITCHLEY	HOLDEN, B. (VICE-CHAIRMAN)	WORDEN.

With the Addition of the following :—

FOR MATERNITY AND CHILD WELFARE PURPOSES :

MESDAMES M. BRADLEY, BOLTON, J. COTTON, A. MATHERS-SMETHURST,
W. TATTERSALL, B.Sc., WALSH, AND MISS HOWARD.

FOR HOUSING PURPOSES :

MESDAMES M. BRADLEY, BOLTON, BYRNE, F. HARRISON, HOBKIRK, AND
R. SUGDEN.

Public Health Officers of the Local Authority.

Medical Officer of Health—

V. T. THIERENS, M.B., CH.B., D.P.H.

Deputy Medical Officer of Health and Tuberculosis Officer—

I. M. McLACHLAN, M.D., B.S., B.HY., D.P.H.

Assistant Medical Officers of Health—

MISS ELLA G. F. MACKENZIE, M.A., M.D., M.B., CH.B., D.P.H.

J. W. HUNTER, M.D., M.B., CH.B., B.HY., D.P.H.

Dental Surgeons—

H. YATES, L.D.S.

E. POULTER, L.D.S.

Part Time Medical Officers—

W. BRIGGS, M.B., B.S. (Orthopaedic Surgeon).

R. Y. AITKEN, F.R.C.S. (Puerperal Fever Consultant).

J. WISHART, F.R.C.S.E. (Oculist and Laryngologist).

W. CRAN DUTHIE, M.B., C.M. (M.O. i/c Male Venereal Disease Clinic).

N. J. BARTON, M.D., D.M.R.E. (Radiologist).

Pathologists—

Pathological work is carried out by the Pathologists at the Blackburn and East Lancashire Royal Infirmary and the Manchester and Liverpool Public Health Laboratories.

District Medical Officers—

J. T. T. RAMSAY, L.R.C.P., L.R.C.S., J.P.

D. O'DRISCOLL, M.B., CH.B., B.A.O.

C. M. BRADLEY, L.R.C.P., L.R.C.S.

J. W. KEIGHLEY, M.B., CH.B.

ARTHUR LEIGH, M.B., CH.B.

Public Vaccinators—

J. T. T. RAMSAY, L.R.C.P., L.R.C.S., J.P.

D. O'DRISCOLL, M.B., CH.B., B.A.O.

C. M. BRADLEY, L.R.C.P., L.R.C.S.

J. W. KEIGHLEY, M.B., CH.B.

G. A. FLEMING, M.B., CH.B.

D. KELLEHER, M.B., CH.B., B.A.O.

Public Analyst—

W. H. ROBERTS, M.Sc., F.I.C.

Public Health Officers of the Local Authority—Continued.

Veterinary Inspector and Chief Meat Inspector—

E. J. BURNDRED, M.C., M.R.C.V.S., D.V.H.

*H. KENYON, Chief District Sanitary Inspector.

*W. H. GOODMAN, Assistant Meat Inspector.

*O. H. WILLIAMS, Special Inspector for Food and Drugs, etc.

District Inspectors—

*J. W. MARGINSON. *W. WALNE. *H. W. FOWLER.

*J. A. SHAW. *J. MARGINSON.

Lady Health Visitors—

§†*Miss LOWE. §*Miss STANANOUGHT. §††Miss BELL. §††*Miss RUDD.

§††Miss CATLOW. §††Miss GOODMAN. (Commenced Sept., 30).

††§Miss SUDWORTH.

Matron, Corporation Hospital—§††Miss CRITCHLEY.

Matron, Springfield Maternity Home—§††Miss BAMBRIDGE.

Tuberculosis Nurse—§†Mrs. FOSTER.

Chief Clerk—THOMAS FOWLER.

Clerks—

§H. WALSH. *J. R. MARSDEN. Miss E. COMBERBACH. Miss C. HAWORTH

*§W. PARKER. §C. AINSWORTH. J. MATHER.

Vaccination Officer—G. DICKINSON.

Disinfectors—

F. HOLDEN. J. SLEVIN.

*Holders of Certificates of the Royal Sanitary Institute.

†Certificated Midwives.

‡Trained Nurses.

§A contribution to the salaries of these Officers is made from Exchequer grants.

CLINICS.

NAME.	PURPOSE.	WHERE HELD.	TIMES.
Inspection Clinic.	Special Examination of Cases Referred by Teachers, School Attendance Officers and School Nurses.	68, Victoria Street.	Wednesdays, 2 p.m. Saturdays, 9-30 a.m.
Ophthalmic Clinic.	Prescription of Spectacles.	68, Victoria Street.	Mondays, 1-30 p.m. Fridays, 1-30 p.m.
Dental Clinic.	Dental Treatment.	"	Every week day by appointment.
Minor Ailments Clinic.	Treatment of Minor Diseases of Skin, etc.	68, Victoria Street.	Every week-day, at 8-45 a.m.
"	"	All Saints' School, Bolton Road.	Mondays to Fridays at 2-0 p.m.; Saturdays, 9-0 a.m.
Cleansing Station	Treatment of Scabies and Cleansing of Vermineous Cases.	Throstlo Street.	Tuesdays and Thursdays (by appointment).
Throat Clinic.	Operative Treatment of Adenoids and Enlarged Tonsils (Out-Patients).	Blackburn and East Lancs. R. Infirmary.	Arranged as required.
"	" (In-Patients).	Queen's Park Hospital.	Arranged as required.
Remedial Exercises.	Treatment of Deformities.	68, Victoria Street.	Every week-day (by appointment).
Tuberculosis Clinic.	Diagnosis and Treatment of Tuberculosis.	Dispensary, Duke Street.	Every week-day (except Wednesday), at 2 p.m. Tuesday, 7-0 p.m.
Orthopædic Clinic.	Supervision of Cripples, etc.	"	Third Friday in each month, at 4-0 p.m.
Maternity and Child Welfare Centres.	Child Welfare.	Princes Street P.M. School.	Monday, 2-0 p.m.
	"	Kendal St. School.	Monday, 2-0 p.m.
	"	Harwood St. School.	Tuesday, 2-0 p.m.
	"	Cornelian St. Institute.	Tuesday, 2-0 p.m.
	"	All Saints' Sch. Bolton Road.	Wednesday, 2-0 p.m.
	"	Harwood St. School.	Thursday, 2-0 p.m.
	"	Kendal St. School.	Thursday, 2-0 p.m.
	"	Griffin Parochial Hall	Friday, 2-0 p.m.
Ante-Natal Clinic.		66, Victoria Street.	Wednesday and Friday, at 10-0 a.m.
Special Ante-Natal Clinic.	(V.D.)	"	Tuesday, 10-0 a.m.
Strabismus Clinic.	Correction of Squint in infants under school age.	"	By special appointment.
Veneroal Diseases Clinics.	(V.D.)	Royal Infirmary.	Men : Tuesday, 5-30 p.m. Friday, 6-0 p.m. Women : Monday, 5-30 p.m. Thursday, 6 p.m.
Ultra-Violet Light Clinic	Artificial Light Treatment.	Corporation Hospital.	Mondays, Tuesdays, Thursdays & Fridays, 2 p.m.
"	"	66, Victoria St.	Every week-day by appointment.
X-Ray Clinic.	X-Ray Examinations.	"	By appointment.
Diphtheria Immunisation Clinic.	Prevention of Diphtheria.	68, Victoria Street.	Monday, 10-0 a.m. Monday, 4-30 p.m. Thursday, 10-0 a.m.

PUBLIC HEALTH OFFICE,
BLACKBURN,
March, 1931.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I beg to present my third Annual Report on the work of the Department during 1930.

The year under review has witnessed several additions to the duties hitherto undertaken by the Department, including, *inter alia*, the administration of the Vaccination Acts and the supervision of children nursed out for reward. These two duties, previously undertaken by the Board of Guardians, were transferred to the Corporation by the Local Government Act, 1929.

Reorganisation, entailing no increase of Staff, has made it possible to hold two sessions each week at Kendal Street instead of one, as in former years.

Following the resignation of Mr. Graham, who had served loyally and well as Chief Sanitary Inspector for over twenty-five years, readjustment and further co-ordination of the general health and sanitary services enabled you to appoint Mr. Kenyon to the position previously held by Mr. Graham and to reduce the number of Sanitary Inspectors from seven to six.

Work begun in September on the extension to Ward III at the Corporation Hospital is now nearing completion.

The Diphtheria Prevention Clinic, inaugurated in November, 1929, has been very active during the year, as indicated in Part IV of this Report.

The new X-Ray apparatus installed at the Health Department in March has filled a great need, as X-Ray facilities are now easily accessible to all branches of the Health Department.

My thanks are again due to all members of the Health Department for the loyalty and zeal with which they have, one and all, discharged their duties throughout the year.

To you, Mr. Chairman, Ladies and Gentlemen, I wish to express my appreciation of the help and encouragement which you have accorded me.

I am,

Mr. Chairman, Ladies and Gentlemen,

Your obedient servant,

V. T. THIERENS.

PART I.

—

Vital Statistics
and
Social Conditions.

VITAL STATISTICS.

	1930
Area (in Acres)	7,649
Population (Census, 1921)	126,643
„ (Estimated middle of 1930)	125,300
„ (Census, March, 1926)	126,497
Number of Inhabited Houses (1921)	30,948
„ „ „ (1930)	33,636
Number of Families or Separate Occupiers (1921) ..	31,608
Rateable Value	£796,111
Sum Represented by a Penny Rate	£2,930
Rate in the £ (excluding Water) 1930-31	14/8*
Gross Expenditure on Health Social Services	£42,509
Income on Health Social Services	£13,196
Net Expenditure on Health Social Services	£24,313

**Subject to 2½% discount for early payment, making
a net rate of 14/3·6d.*

Live Births	{ Legitimate ... 1516	{ M. 816 }	Birth Rate	12·7
	{ Illegitimate ... 79 }	{ F. 779 }		

Number of women dying in, or in consequence of, child-birth, from—

Sepsis	0	{ 0·00 }	} per 1,000 population
Other Causes	7	{ 0·05 }	

Still Births	...	...	...	...	...	...	...	108
Rate per 1,000 total births	...	...	...	...	...	...	...	67·6
Deaths	...	...	{ M. 777 }	1605	Death Rate	...	...	12·8
			{ F. 828 }					

Percentage of total deaths occurring in public institutions ... 44·1

Deaths of infants under one year of age per 1,000 live births :—

Legitimate	83·7
Illegitimate	75·9
Deaths from Measles (all ages)	0·18
„ Whooping Cough (all ages)	0·04
„ Diarrhoea (under two years of age)	5·60
(Per 1,000 births).	

Births.—The births registered were 1,595, of which 79 were illegitimate. The total male births were 816, and female 779. The birth rate was 12·7 per 1,000, compared with 16·3 for England and Wales, and 16·6 for the 107 great towns.

TABLE 1.

<i>Year.</i>	<i>Birth Rate.</i>	<i>Death Rate.</i>	<i>Natural Increase 1,000 Population.</i>
1904	23·5	17·2	6·3
1914	20·8	14·9	5·9
1920	22·1	13·9	8·2
1921	19·5	12·7	6·8
1922	16·8	14·2	2·6
1923	16·2	13·4	2·8
1924	15·3	14·0	1·3
1925	14·9	13·9	1·0
1926	14·0	12·9	1·1
1927	13·7	14·9	−1·3
1928	13·8	12·2	1·5
1929	12·4	14·9	−2·5
1930	12·7	12·8	−0·08

The death rate of Blackburn males was 13·6, and of females 12·1 per 1,000 living of each sex.

The slight increase in the birth rate and a fall of 2·1 in the death rate result in a natural decrease of population of 0·08, compared with one of 2·5 in 1929.

Marriages.—There were 1,001 marriages solemnized during the year as follows : Established Churches, 464 ; other places of worship, 360 ; Register Office, 175 ; and two were solemnized at the Jewish Synagogue.

TABLE 2.

WARD DEATH RATES IN RELATION TO PERSONS PER ACRE
AND ROOM SPACE.

1921 CENSUS.

<i>Ward.</i>	<i>Death Rate.</i>	<i>Persons per Acre.</i>	<i>Rooms per Person.</i>
St. Stephen's	16·0	9·5	1·08
Trinity	12·5	59·1	1·05
St. Michael's	7·8	14·4	1·10
St. John's	13·4	71·1	1·13
St. Silas'	13 0	9·1	1·50
St. Paul's	13·7	79·5	1·12
St. Peter's	13·1	50·5	1·05
St. Mary's	19·0	31·8	1·02
St. Matthew's	11·9	87·1	1·05
St. Thomas's	12·4	7·0	1·28
Park	12·9	14·6	1·08
St. Luke's	11·6	45·1	1·03
St. Mark's	10·9	25·9	1·13
St. Andrew's	12·6	11·6	1·07

TABLE 3.

DEATH RATES IN WARDS FOR THE PAST SIX YEARS.

<i>Ward.</i>	1925	1926	1927	1928	1929	1930	<i>Av. for 6 Years</i>
St. Stephen's ..	12·1	12·4	14·8	12·2	17·8	16·0	14·2
Trinity	14·2	11·8	18·1	13·2	14·1	12·5	14·0
St. Michael's ..	11·9	9·7	11·6	11·3	14·7	7·8	11·2
St. John's	13·0	12·4	13·4	12·3	11·8	13·4	12·7
St. Silas's	11·4	11·1	13·9	9·7	15·1	13·0	12·4
St. Paul's	15·2	14·1	13·3	14·2	15·7	13·7	14·4
St. Peter's	19·0	15·8	18·5	17·4	16·2	13·1	16·7
St. Mary's	21·5	22·6	21·1	14·6	18·1	19·0	19·5
St. Matthew's ..	13·1	12·1	13·8	9·8	12·6	11·9	12·2
St. Thomas's ..	13·6	12·3	14·2	10·8	15·7	12·4	13·2
Park	13·8	13·6	11·7	13·1	15·7	12·9	13·5
St. Luke's	14·7	13·6	16·1	11·7	15·2	11·6	13·8
St. Mark's	11·6	10·8	14·6	11·7	10·9	10·9	11·8
St. Andrew's ..	14·3	13·4	17·4	11·7	15·3	12·6	14·1
Borough	13·9	12·9	14·9	12·2	14·9	12·8	13·6

TABLE 4.
VITAL STATISTICS DURING 1930.

WARDS	Popula- tion	Births	Deaths	Birth- Rate	Death- Rate	Deaths under one year per 1000 Births	Death- rate from six Zymotic Diseases excluding Diarrhoea	Death- rate from Diar- rhoea	Death- rate from Bron- chitis & Pneu- monia	Death-rate from Pulmonary Tuberculosis	Death-rate from Non Pulmonary Tuberculosis
ST. STEPHEN'S	10906	193	175	17.7	16.0	36	0.3	0.09	2.9	0.6	0.1
TRINITY	8771	125	110	14.2	12.5	80	0.2	0.0	1.9	0.8	0.0
ST. MICHAEL'S	8883	84	70	9.4	7.8	95	0.0	0.1	1.7	0.7	0.1
ST. JOHN'S... ..	7117	73	96	10.2	13.4	109	0.2	0.0	2.5	0.1	0.2
ST. SILAS'S... ..	8921	67	116	7.5	13.0	59	0.0	0.0	1.9	0.4	0.1
ST. PAUL'S... ..	9660	124	133	12.8	13.7	56	0.5	0.1	1.9	0.9	0.3
ST. PETER'S	6640	106	87	15.9	13.1	103	0.9	0.0	2.7	1.6	0.0
ST. MARY'S	5463	107	104	19.5	19.0	205	1.0	0.1	3.4	2.1	0.9
ST. MATTHEW'S... ..	9222	117	110	12.6	11.9	68	0.4	0.2	1.9	0.7	0.1
ST. THOMAS'S	11941	109	149	9.1	12.4	128	0.08	0.1	2.3	0.7	0.0
PARK	9384	120	121	12.7	12.9	50	0.4	0.0	2.5	1.1	0.2
ST. LUKE'S	7492	99	87	13.2	11.6	60	0.1	0.1	2.5	0.2	0.1
ST. MARK'S	10313	104	113	10.0	10.9	96	0.1	0.0	1.9	1.0	0.0
ST. ANDREW'S	10587	167	134	15.7	12.6	71	0.1	0.0	1.8	0.6	0.0
BOROUGH	125300	1595	1605	12.7	12.8	83	0.3	0.07	2.2	0.8	0.1

TABLE 5.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1930 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number	Nett.		Number	Rate	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number	Rate					Number	Rate per 1,000 Nett Births.	Number	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1920	127700	2835	2827	22.1	1891	14.8	157	52	311	110.0	1786	13.9
1921	129400	2538	2528	19.5	1753	13.5	157	59	276	109.1	1655	12.7
1922	129376	2207	2177	16.8	1983	15.3	190	50	215	98.7	1843	14.2
1923	129000	2121	2094	16.2	1878	14.5	191	49	210	100.2	1736	13.4
1924	129000	2013	1980	15.3	2013	15.4	250	47	167	84.3	1810	14.0
1925	126900	1948	1902	14.9	1973	15.5	251	45	186	97.7	1767	13.9
1926	124400	1802	1743	14.0	1795	14.4	240	61	156	89.5	1616	12.9
1927	124500	1764	1702	13.7	2128	17.0	327	63	131	77.0	1864	14.9
1928	125100	1803	1730	13.6	1758	14.0	275	52	139	80.3	1535	12.2
1929	125300	1637	1554	12.4	2102	16.7	305	74	125	80.4	1871	14.9
1930	125300	1683	1595	12.7	1911	15.2	345	39	133	83.3	1605	12.8

TABLE 6.

DEATHS REGISTERED DURING THE CALENDAR YEAR 1930 CLASSIFIED BY AGE AND CAUSE.

CAUSES OF DEATH.		Net Deaths at the subjoined ages of "Residents," whether occurring within or without the District.											Total Deaths whether of "Resi- dents" or "non- Residents" in Institutions in the District.
		All Ages	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 35 years.	35 and under 45 years.	45 and under 55 years.	55 and under 65 years.	65 years and upwards.	
1		2	3	4	5	6	7	8	9	10	11	12	13
All Causes	Certified	1580	132	31	31	32	67	70	128	155	265	669	844
	Uncertified	25	1	..	..	..	..	..	..	4	7	13	..
Enteric Fever		2	..	..	..	..	..	..	1	..	1	..	1
Small Pox .....		..	..	..	..	..	..	..	..	..	..	..	..
Measles		23	6	7	8	2	..	..	..	..	..	..	7
Scarlet Fever .....		..	..	..	..	..	..	..	..	..	..	..	1
Whooping Cough		5	2	..	3	..	..	..	..	..	..	..	1
Diphtheria and Croup		9	1	2	2	3	..	..	1	..	..	..	11
Influenza		7	..	..	..	..	1	1	2	1	..	2	3
Erysipelas		3	..	..	..	..	..	..	1	..	..	2	2
Tetanus .....		..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis		105	..	1	..	5	26	23	22	13	8	7	47
Tuberculous Meningitis		9	..	..	1	5	..	1	1	..	1	..	3
Other Tuberculous Diseases		9	..	1	..	1	5	..	1	..	1	..	9
Cancer, Malignant Disease		185	..	..	..	..	1	3	7	33	58	83	90
Acute Rheumatism and Rheumatic Fever		3	..	..	..	1	1	..	1	..	..	..	1
Cerebro-Spinal Meningitis		1	1	..	..	..	..	..	..	..	..	..	1
Encephalitis Lethargica		6	1	..	..	1	2	..	1	..	..	1	5
Other Forms of Meningitis (not T.B.)		8	..	1	2	1	1	1	2	..	..	..	6
Poliomyelitis .....		..	..	..	..	..	..	..	..	..	..	..	..
Locomotor Ataxy.....		..	..	..	..	..	..	..	..	..	..	..	..
General Paralysis of the Insane ..		3	..	..	..	..	..	..	..	1	2	..	..
Cerebral Hæmorrhage		85	..	..	..	..	..	..	2	3	21	59	16
Other Diseases of the Nervous Sys'm ..		73	8	2	5	2	1	1	7	4	12	31	44
Senile Decay		59	..	..	..	..	..	..	..	..	..	59	33
Organic Heart Disease		279	1	1	1	1	9	9	15	33	45	164	134
Arterio-Sclerosis		41	..	..	..	..	..	..	1	1	10	29	15
Aneurism .....		..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of the Circulatory System		6	..	..	..	..	..	..	..	1	4	1	1
Bronchitis, Acute		53	3	1	..	..	..	..	2	5	4	38	9
Bronchitis, Chronic		87	3	1	1	1	..	1	3	4	18	55	28
Influenzal Broncho Pneumonia		2	..	..	..	..	..	..	2	..	..	..	1
Pneumonia (other forms)		141	20	9	6	2	4	10	17	14	17	42	72
Other Diseases of the Respiratory System		28	..	1	..	..	..	1	2	6	4	14	20
Diarrhœa and Enteritis		9	6	3	..	..	..	..	..	..	..	..	7
Appendicitis, Typhlitis and Peri- tonitis		11	..	..	1	..	1	..	4	1	1	3	33
Cirrhosis of the Liver		4	..	..	..	..	..	..	..	..	3	1	2
Alcoholism .....		..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of the Digestive Sys'm ..		32	2	..	..	1	1	3	9	3	3	10	47
Nephritis and Bright's Disease		76	..	..	..	..	1	3	5	7	24	36	24
Other Diseases of the Urinary Sys'm ..		15	..	..	..	..	..	..	1	2	1	11	12
Puerperal Fever .....		..	..	..	..	..	..	..	..	..	..	..	4
Puerperal Pyrexia .....		..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases and Accidents of Pregnancy and Parturition....		7	..	..	..	..	..	6	1	..	..	..	15
Congenital Debility and Malforma'n ..		39	39	..	..	..	..	..	..	..	..	..	17
Premature Birth		36	36	..	..	..	..	..	..	..	..	..	11
Venereal Diseases		1	..	..	..	..	..	..	1	..	..	..	..
Other Diseases of the Reproductive System (Non-Malignant)		2	..	..	..	..	..	..	..	1	..	1	3
Violent Deaths (excluding Suicide)..		57	3	1	1	6	8	2	5	5	9	17	67
Suicide		26	..	..	..	..	..	5	4	9	8	..	4
All other Defined Diseases		55	1	..	..	..	5	..	7	12	14	16	37
Diseases Ill-defined or unknown....		3	..	..	..	..	..	..	..	..	3	..	..
All Causes		1605	133	31	31	32	67	70	128	159	272	682	844

TABLE 7.

CLASSIFICATION OF DEATHS ACCORDING TO DISEASE.

CAUSE OF DEATH.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	
	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Death Rate.
Enteric Fever .....	..	..	..	1	..	1	2	1	..	..	2	0.01
Smallpox .....	..	..	..	..	..	..	..	..	..	..	..	0.00
Measles	18	3	32	6	20	28	3	36	..	..	23	0.18
Scarlet Fever	3	1	2	..	1	3	1	1	..	2	..	0.00
Whooping Cough	1	20	9	7	7	16	20	1	4	8	5	0.04
Diphtheria and Croup	10	6	7	1	3	8	8	11	14	18	9	0.07
Influenza	59	20	72	49	69	34	23	74	19	65	7	0.05
Erysipelas .....	..	2	1	2	1	..	1	7	..	3	3	0.02
Phthisis (Pulmonary Tuberculosis)	82	77	96	93	85	90	106	96	82	114	105	0.84
Tuberculous Meningitis	14	5	10	4	4	9	2	2	7	4	9	0.07
Other Tuberculous Diseases..	15	19	16	27	22	11	8	12	14	9	9	0.07
Cancer, Malignant Disease ..	172	175	163	177	184	160	166	160	163	192	185	1.48
Rheumatic Fever .....	..	2	..	..	..	2	..	5	2	2	3	0.02
Meningitis	17	13	15	10	11	18	9	5	14	18	8	0.06
Organic Heart Disease	215	214	221	166	204	211	198	269	334	315	279	2.22
Bronchitis	231	163	224	209	238	194	192	221	119	190	140	1.11
Pneumonia (all forms)	178	133	173	189	199	176	112	175	152	201	142	1.14
Other Diseases of Respiratory Organs	16	19	29	22	21	15	20	27	25	29	28	0.22
Diarrhoea and Enteritis	45	47	26	24	15	12	15	24	8	8	9	0.07
Appendicitis and Typhlitis..	12	11	8	9	4	10	13	12	19	21	11	0.08
Cirrhosis of Liver	3	11	5	10	5	5	2	3	1	4	4	0.03
Alcoholism	3	1	..	..	..	..	1	1	..	..	..	0.00
Nephritis & Bright's Disease.	52	56	39	53	51	44	59	40	31	66	76	0.60
Puerperal Fever	3	6	1	5	3	4	7	3	1	2	..	0.00
Other Accidents and Diseases of Pregnancy and Parturition	13	5	14	9	7	7	7	10	6	13	7	0.05
Congenital Debility and Malformation, including Premature Birth	130	104	98	100	59	68	76	66	71	57	75	0.60
Violent Deaths, excluding Suicide	48	46	43	36	49	46	52	60	50	72	57	0.45
Suicide	12	17	20	22	21	20	16	27	20	17	26	0.20
Other Defined Diseases	407	470	511	500	526	567	494	514	372	435	379	3.02
Diseases ill-defined or unknown	27	9	8	5	2	8	3	1	7	6	3	0.02
TOTAL	1786	1655	1843	1736	1810	1767	1616	1864	1535	1871	1605	12.80

Deaths :—The total number of deaths registered was 1,605, of which 777 were males and 828 were females. The death rate was 12·8 per 1,000, compared with 11·4 for England and Wales and 11·5 for the 107 great towns.

CAUSES OF DEATH AND SICKNESS.

During 1930 the chief causes of death were as under :—

<i>Disease.</i>	<i>No. of Deaths.</i>		<i>Deaths per 1,000.</i>	
Organic Heart Disease	279	(315)	2·22	(2·51)
Pneumonia	143	(201)	1·14	(1·60)
Cancer	185	(192)	1·48	(1·53)
Bronchitis	140	(190)	1·11	(1·51)
Pulmonary Tuberculosis	105	(114)	0·84	(0·90)

The bracketed figures represent the corresponding number for 1929.

Diseases of bodily systems and group diseases to which death was assigned are as follows :—

<i>Disease.</i>	<i>No. of Deaths.</i>		<i>Deaths per 1,000.</i>	
Respiratory System (Non-Tubercular) ...	311	(420)	2·48	(3·35)
Circulatory System	326	(352)	2·60	(2·80)
Nervous System (Non-Tubercular)	176	(212)	1·40	(1·69)
Cancer	185	(192)	1·47	(1·53)
Tuberculosis (all forms)	123	(127)	0·98	(1·01)
Renal System (Non-Tubercular)	91	(100)	0·71	(0·79)
Infectious Diseases	49	(96)	0·39	(0·76)
Digestive Diseases	56	(58)	0·44	(0·46)
Diseases of Babyhood (under one year) ...	75	(57)	0·59	(0·45)
Diseases associated with Maternity	7	(15)	0·05	(0·12)

The bracketed figures represent the corresponding number for 1929.

In the Infectious Diseases Group Influenza was responsible for seven deaths, and diphtheria, which was fairly prevalent, took toll of nine lives. The question of diphtheria and its prevention is dealt with in a later section of this Report.

Further perusal of these Tables shows that the total number of deaths ascribed to respiratory disease was 311, which corresponds to a death rate of 2·48 per 1,000 living.

As in 1929, organic heart disease was the greatest single cause of death, but death rate from this cause was less than in 1929. Other diseases of the circulatory system, not being organic heart disease, accounted for a further 47 deaths. For previous years the number of deaths from organic heart disease have been as under :—

<i>Year.</i>	1930	1929	1928	1927	1926	1925	1924	1923
Number of Deaths ...	279	315	334	269	198	211	204	166

The deaths from Cancer numbered 185, as compared with 192 in 1929 ; 163 in 1928 ; 160 in 1927 ; 166 in 1926 : 160 in 1925 ; 184 in 1924. There has been, therefore, no apparent definite increase in deaths from this cause during the past five years.

The Death Rates from Cancer per 1,000 of the population for the past 12 years are as under :—

1919	...	...	1.30	1925	...	...	1.26
1920	...	...	1.22	1926	...	...	1.33
1921	...	...	1.36	1927	...	...	1.28
1922	...	...	1.26	1928	...	...	1.30
1923	...	...	1.37	1929	...	...	1.53
1924	...	...	1.42	1930	..	.	1.48

TABLE 8.

DEATHS FROM CANCER OCCURRED AT THE FOLLOWING AGES :

<i>Age Period.</i>	<i>Male.</i>	<i>Female</i>	<i>Total</i>	<i>No. of popu- lation at this age period.</i>	<i>Number of deaths per 1,000 persons living.</i>
Under 25 years	1	..	1	41323	0.02
25 and under 35 years	2	1	3	31210	0.09
35 .. 45 years	1	6	7	19681	0.35
45 .. 65 years	42	49	91	26321	3.45
65 years and over	36	47	83	6765	12.26
	82	103	185	125300	1.48

TABLE 9.
SITES OF FATAL CANCER.

<i>Site.</i>	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Skin	—	1	1
Tongue and Mouth	6	1	7
Kidney	—	—	—
Oesophagus	5	—	5
Stomach	18	26	44
Liver	6	10	16
Bowel and Abdominal ..	18	15	33
Rectum	7	5	12
Bladder	1	—	1
Prostate	4	—	4
Larynx	4	—	4
Uterus	—	22	22
Breast	—	11	11
Ovary	—	3	3
Pancreas	4	2	6
Spleen	—	1	1
Gall Bladder	—	2	2
Bones	—	1	1
Lung	—	2	2
Male Genital Organs ..	—	1	1
Others	9	—	9
TOTAL	82	103	185

In Table 8 it will be noted that the number of deaths from Cancer per 1,000 living is higher in the older than in the younger age groups. The most rapid rate of increase takes place in the age group 65 and over, in which group the rate is 8.81 per 1,000 higher than in the 45-65 age group.

MORTALITY STATISTICS IN COTTON OPERATIVES.

The subjoined Tables are a continuation of those given in previous reports.

TABLE 10.

RESPIRATORY DISEASES (NON-TUBERCULAR).
DEATH-RATES PER 1,000 EMPLOYEES (1921 CENSUS).

DEATHS.

Age Period.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.
	M.	F.						M.	F.					
Years														
15-25..	..	..	..	..	1	1	4	..	..	..	..	1.8	0.7	0.1
25-35..	..	5	..	..	..	..	12	..	1.0	..	..	..	..	0.5
35-45..	..	2	1	..	..	..	26	..	0.6	2.7	..	..	2.9	1.3
45-55..	4	2	..	1	..	1	29	4.0	1.1	..	1.9	..	2.4	1.8
55-65..	2	2	..	3	1	4	43	3.0	2.9	..	11.4	11.6	18.6	4.0
65 and upwards..	9	5	6	1	..	6	149	44.7	40.3	206.8	15.3	..	111.1	21.7
TOTAL ..	15	16	7	5	2	14	263	2.3	0.9	3.5	1.1	1.4	3.9	2.7

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PULMONARY TUBERCULOSIS.

Age Period.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.
	M.	F.						M.	F.					
15-25..	..	..	..	..	2	4	26	0.4	1.2	1.3	..	3.7	3.0	1.1
25-35..	1	9	1	1	..	..	23	0.8	1.2	2.0	0.9	..	..	1.1
35-45..	2	6	..	1	..	1	22	1.7	1.4	..	1.2	..	1.4	1.1
45-55..	2	5	..	..	..	..	13	2.0	0.5	..	..	..	..	0.8
55-65..	2	1	..	1	..	..	8	3.0	1.4	..	3.8	..	..	0.7
65 and upwards..	1	..	..	1	..	..	7	4.9	..	..	15.3	..	..	1.0
TOTAL ..	9	22	2	4	2	5	99	1.4	1.2	1.0	0.9	1.4	1.3	1.0

TABLE 10—Continued.

NON-PULMONARY TUBERCULOSIS.

Age Period.	DEATHS.			DEATH RATES.					
	Weavers.			Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.	
Years	M.	F.							
15—25..	1	..	..	..	..	3.7	..	0.2	0.2
25—35..	..	..	..	..	..	..	..	0.04	0.04
35—45..	..	..	..	..	..	..	..	0.01	0.01
45—55..	..	..	..	..	..	..	..	..	..
55—65..	..	..	..	..	..	..	..	0.1	0.1
65 and upwards..	..	..	..	..	..	..	..	..	..
TOTAL ..	1	..	..	..	..	1.4	..	0.1	0.1

ALL OTHER DISEASES.

15-25..	2	9	1	..	1	3	32	0.9	1.2	1.3	..	1.9	2.2	1.5
25-35..	1	6	1	..	..	1	34	0.7	1.2	2.0	..	..	1.1	1.6
35-45..	5	12	..	8	2	4	78	4.3	3.5	..	9.7	7.4	5.9	3.9
45-55..	7	12	..	5	1	9	117	7.0	7.0	8.8	9.9	6.1	21.8	7.2
55-65..	10	5	5	5	3	16	219	15.1	7.4	42.7	19.1	34.8	74.4	20.5
65 and upwards..	16	19	17	11	4	34	526	79.6	156.4	586.2	169.2	190.4	629.6	76.6
TOTAL ..	41	63	26	29	11	67	1006	6.5	3.5	13.3	6.6	7.6	18.7	10.4
GRAND TOTAL...	66	101	35	38	17	86	1378	10.4	5.6	17.9	8.7	11.9	24.0	14.3

TABLE 11.

POPULATIONS, 1921 CENSUS.

Age Period. Years	Weavers.		Spinners.	Winders, Warpers, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.
	M.	F.					
15—25.. . . .	2019	7009	723	1616	530	1329	21946
25—35.. . . .	1258	4892	490	1094	359	899	20876
35—45.. . . .	1151	3380	367	819	269	674	19878
45—55.. . . .	1000	1707	224	501	164	412	16052
55—65.. . . .	660	676	117	261	86	215	10647
65 and upwards.. . . .	201	124	29	65	21	54	6866
TOTAL	6289	17788	1950	4356	1429	3583	96265

SOCIAL CONDITIONS.

The chief industry in Blackburn is Cotton Weaving and allied processes.

The year under review has been one of industrial depression, with consequent unemployment.

HOSPITAL ACCOMMODATION.

(a) HOSPITALS MAINTAINED BY THE LOCAL AUTHORITY.

(1) *Infectious Diseases* :—

The Corporation Hospital, in Longshaw Lane, has accommodation for 56 fever patients. In time of great prevalence of infectious disease, closure of Ward V, at present used as a Tuberculosis Pavilion, would provide 30 additional beds for fever cases, bringing the Fever bed accommodation to 86.

The extension to Ward III at the Corporation Hospital, now approaching completion, will provide four additional single bed cubicles for the reception of cases of infectious disease.

The Deputy Medical Officer of Health (who resides at the Corporation Hospital) is responsible to the Medical Officer of Health for the general administration of the Hospital. The services of specialists are available as required for consultation and for major operative work, with the exception of Tracheotomies, which are performed by Medical Officers of the Health Department.

(2) *Puerperal Fever and Pyrexia, Ophthalmia Neonatorum* :—

Cubicles are available in Ward III for the reception of selected cases of the above.

(3) *Small Pox* : —

The Finnington Hospital, which is situated three miles outside the Borough, has beds for the reception of 60 Small-Pox cases.

This Hospital is staffed as required from the Corporation Hospital.

(4) *Tuberculosis* :—

Sixty-four beds, for the reception of Tuberculous cases, are available at the Corporation Hospital.

Ten beds for the reception of early cases of Tuberculosis are retained by the Corporation at Meathop Sanatorium, Grange-over-Sands.

The Nursing Staff of the Corporation Hospital is as under :—

Matron	...	...	...	...	1
Night Sister	...	...	...	...	1
Day Sisters	...	...	...	...	3
Staff Nurses	...	...	...	...	6
Assistant Nurses...	...	...	...	...	11
Probationers	...	...	...	...	6

HOSPITAL PATHOLOGICAL WORK.

The routine pathological work of the Hospital is undertaken by Medical Officers of the Health Department in the Hospital Laboratory. Particulars of the work done are given in Section IV of this Report.

(5) *Maternity* :—

The Municipal Maternity Home, Preston New Road, has accommodation for 20 cases.

The Nursing Staff of Springfield comprises a Matron (S.R.N., C.M.B.) , one Sister (S.R.N., C.M.B.), two Nurses, both of whom hold the C.M.B., and three pupils who are State Registered Nurses.

QUEEN'S PARK HOSPITAL.

This Hospital, since its transfer from the Blackburn Board of Guardians to the Local Authority, on April 1st, has been administered by the Public Assistance Committee.

The medical staff comprises two residents, Dr. Fleming and Dr. Irvine, and one stipendiary consultant surgeon. In addition, services of other consultants are obtained as required.

Facilities are available for major operative surgery, in addition, there are special departments for orthopædics, X-ray, ultra-violet light therapy, massage and dental work.

Routine pathological work is undertaken by a lay pathological assistant, under the supervision of the Resident Medical Officers.

The Nursing Staff of the Hospital is as under :—

- 1 Superintendent Nurse, Trained State Registered Nurse, C.M.B.,
Certificate in Ultra-Violet Light Therapy.
- 1 Sister Tutor, Trained State Registered Nurse, C.M.B.
- 1 Home Sister, Trained State Registered Nurse, C.M.B.
- 1 Night Superintendent Nurse, Trained State Registered Nurse,
C.M.B.
- 1 Assistant Night Sister, Trained State Registered Nurse, C.M.B.
- 1 Charge Sister (for Artificial Sunlight Treatment) Trained State
Registered Nurse, C.M.B., and Certificate in Ultra-Violet
Light Therapy.
- 10 Charge Sisters, Trained State Registered Nurses (five with C.M.B.)
 - 1 Staff Nurse, Trained State Registered Nurse.
- 65 Probationer Nurses.
- 10 Male Nurses.

The appended Table shows the classification of the accommodation for the sick at the Queen's Park Hospital :—

TABLE 12.

Classification of Wards	Number of Wards	BEDS AVAILABLE.			
		Men	Women	Children	Total.
Medical	4	42	96	...	138
Surgical	2	37	25	...	62
Children... ..	3	...	...	135	135
Chronic Sick... ..	5	66	79	...	145
Tuberculosis	1	18	...	...	18
Maternity	1	...	20	...	20
Mental	2	66	95	...	161
TOTAL	18	229	315	135	679

The Hospital is a recognised training school for nurses.

BLACKBURN EDUCATION COMMITTEE.

COTTAGE HOMES SUB-COMMITTEE.

LIST OF COTTAGE HOMES FOR CHILDREN.

No. 1, 2, 3 and 4, PROBATIONERY COTTAGE HOMES, situate off Queen's Road. Blackburn.

No. 1 and 2, COTTAGE HOMES, situate in Cherry Street, Blackburn (Protestant Children).

No. 3 and 4, COTTAGE HOMES, situate in Hickory Street, Blackburn (Catholic Children).

Accommodation in each Home for 15 children.

RECEIVING AND ISOLATION HOME, situate off Queen's Road, Blackburn.

Accommodation for 15 children.

WORKING BOYS' HOME, situate at No. 4, Audley Range, Blackburn.

Accommodation for eight boys.

Total Accommodation ... 140.

SUPERINTENDENT'S HOUSE, situate off Queen's Road, Blackburn.

NUMBER OF CHILDREN IN COTTAGE HOMES.

Borough	...	...	69	}	... Total	87
County	...	...	18			
Borough, 5 years	...	...	...	...	...	5
Borough, 4 years	...	...	...	...	...	5
			TOTAL	...	...	10
County, 4 years	...	...	...	...	...	3
County, 2½ years	...	...	...	...	...	1
			TOTAL	...	...	4

WORKING BOYS' HOME :

Borough	4	}	Total	...	6
County	2				

(b) VOLUNTARY HOSPITALS.

The Blackburn and East Lancashire Royal Infirmary has accommodation for 240 in-patients. The beds are allotted as under :—

	<i>Males.</i>		<i>Females.</i>	
General Medical	11	...	14	
General Surgical	76	...	83	
Children	14	...	13	
Venereal Disease	2	...	2	
Eye, Ear, Nose & Throat ...	11	...	14	
		—		
TOTAL	114	...	126	
		—		

Surgical tuberculosis and orthopædic cases are treated in the general surgical wards. Similarly cases of puerperal fever, pyrexia and ophthalmia neonatorum are received into the Hospital, although no separate accommodation is provided.

Facilities are available for general medical and surgical work, and in addition there is a full range of special departments, such as X-Ray, Dental, ophthalmic, aural, etc.

Pathological work at the Hospital is undertaken by the Honorary Pathologist.

Co-operation obtains between the Royal Infirmary and the Local Authority whereby treatment (under the Local Authority's Scheme) of venereal disease and tonsils and adenoids is carried out at the Infirmary.

Full use has been made of the local Hospitals throughout the year, and, speaking in general terms, the hospital provision is adequate for the area.

AMBULANCE FACILITIES.

(1) *For Infectious Cases :—*

The Local Authority provide Three Motor Ambulances.

(2) *For Non-Infectious Cases : -*

Three Motor Ambulances are available, one provided by the Watch Committee, one by the Joint Committee of the British Red Cross Society and the St. John Ambulance Brigade, and one by the Public Assistance Committee.

PUBLIC ASSISTANCE.

I am indebted to Mr. G. B. Pye, Public Assistance Officer, for the appended particulars.

No. of residents in the County Borough in receipt of out-door relief :—

1st January, 1930	...	1385 families, comprising 2903 persons.
1st July, 1930	...	1246 families, comprising 2197 persons.
1st January, 1931	...	1333 families, comprising 2326 persons.

No. of Blackburn persons relieved on the 1st January, 1931, in the--

Institution	...	...	...	...	772
Cottage Homes	...	...	...	...	73
Working Boys' Home	...	...	...	...	5

In addition there are a number of persons in the Institution, Cottage Homes and the Working Boys' Home who are chargeable to the Lancashire County Council.

Expenditure on out-relief to Blackburn persons during the 12 months ended 30th September, 1930 :—

Half-year ended 31st March, 1930	...	£21,562/6/9.
Half-year ended 30th Sept., 1930	...	£16,137/5/8.

No. of Blackburn persons in Queen's Park Hospital on the 1st January, 1931, included in the 772 mentioned above	...	...	...	...	331
Average No. of Blackburn persons in the Cottage Homes during 1930	...	...	...	...	(per day) 73
Total number of Beds in the Institution, 1st January, 1931	...	...	...	...	1248
Total number of Inmates on the same day (including persons charge- able to the Lancashire County Council)	...	...	...	...	1092
Total number of Inmates of the Institution on the 1st January, 1931, who were suffering from sickness, accident, bodily or mental infirmity, including aged and infirm persons requiring regular nursing care or treatment	...	...	...	...	1052
Total number of Sick Children on the 1st January, 1930	...	...	...	...	124
Admitted during 1930	...	...	...	...	452
Discharged during 1930	...	...	...	...	385
Died during 1930	...	...	...	...	56
Total number of Sick Children on the 1st January, 1931	...	...	...	...	135
Number of Beds available for Casuals	...	...	...	...	63

There has been no change in the administration of Poor Law Medical Out-relief since the service was transferred in April. In all there are five districts, which comprise a total population (1921 Census) of 126,643.

The districts, with populations, are as under :—

<i>Districts.</i>	<i>Population 1921.</i>
St. Matthew's Ward	} 30868
Park Ward ...	
St. Thomas's Ward	
St. Luke's Ward ...	} 24062
St. Paul's Ward ...	
St. Peter's Ward	
St. Mary's Ward	} 25410
St. Stephen's Ward	
Trinity Ward ...	
St. John's Ward ...	} 25170
St. Michael's Ward	
St. Silas' Ward ...	
St. Andrew's Ward	} 21133
St. Mark's Ward	

PART II.

Sanitary Circumstances.

WATER SUPPLY.

The town is supplied with an upland service water, of which samples taken at regular intervals during the year have been subjected to analysis. With the exception of several which showed a somewhat high action on bright lead foil, all have been satisfactory.

These latter samples had been taken following heavy rainfalls, and, for that reason, contained an unusual amount of suspended peaty material and peaty acids. The conditions under which the lead foil test is conducted are, however, in no way comparable with those under which the water is brought into contact with the lead service pipes. Cases of lead-poisoning are very rare in the town, and a perusal of the death returns for the past five year period does not reveal any cases reasonably suggestive of plumbism.

Bacteriological reports on water examined have been uniformly satisfactory. I append typical reports :—

(a) CHEMICAL.

Colour :	Brownish red.	Turbidity :	Nil.	
Oxygen absorbed at 27° in four hours in acid solution...				0·347
Free and Saline Ammonia	... ..	As NH ₃	0·0014	
Albuminoid Ammonia	... ..	As NH ₃	0·0118	
Nitrous Nitrogen	... ..	As NH ₃	Nil.	
Nitric Nitrogen	... ..	As NH ₃	0·025	
Chlorides	... ..	As Cl	0·9	
Hardness—Temporary	... ..	As Ca CO ₃	0·2	
Permanent	... ..	As Ca CO ₃	1·8	
Total	... ..	As Ca CO ₃	2·0	
Reaction :	Laemoid, Acid, Methyl Orange, Neutral.	Phenolphthalein,	Acid.	
Action on bright lead foil in 24 hours	... ..			0·34
Action on bright copper foil in 24 hours...	... ..			0·10
All the numerical results are expressed as parts per 100,000.				

(b) BACTERIOLOGICAL EXAMINATION.

<i>Quantitative Analysis.</i>				<i>Average</i>	
				<i>Results of Three Examinat'ns.</i>	
(a)	Aerobic micro-organisms growing in three days in nutrient gelatine at 20° C. to 21°C.			No. of colonies in one gramme of water.	
	Non-liquefying bacteria	...	...	168	} Total 213
	Liquefying bacteria...	...	...	45	
	Other micro-organisms	...	...	...
				<i>Quantity of water in which these bacteria were—</i>	
				<i>found</i>	<i>not found</i>
(a)	Bacteria associated with sewage or faecal pollution ... <i>Bacillus coli communis</i> ...			100 cc.	10 cc.

HOUSING.

(a) STATISTICS.

(1) Number of New Houses erected during the year :—

(a) Total	...	...	...	...	...	...	...	...	279
(i) By the Local Authority	...	...	...	...	...	...	...	...	190
(ii) By other bodies or persons	...	...	...	...	...	...	...	...	89
(b) With State Assistance under the Housing Acts :—									
(1) By the Local Authority :									
(a) For the purpose of Part II of the Act of 1925	...	...	...	...	...	...	...	...	<i>Nil.</i>
(b) For the purpose of Part III of the Act of 1925	...	...	...	...	...	...	...	...	190
(c) For other purposes	...	...	...	...	...	...	...	...	<i>Nil.</i>

(2) By other bodies or persons *Nil.*

The Local Authority owns 1333 houses, which are held :—

(i) Under Part III of the Housing Acts, 1925—30	...	...	...	...	720
(ii) Under Part II of the Housing Acts, 1925—30	...	...	...	...	<i>Nil.</i>
(iii) For other purposes	...	...	...	...	613

Of these houses, 1153 belong to the Housing Committee, and 180 to other Departments of the Corporation.

Four hundred and forty-six of the houses owned by the Corporation have been built and occupied during the last two years.

Dwelling Houses :—Inspection.

(1) Total number of Dwelling Houses inspected for housing defects (under P.H.A. or Housing Acts)	..	..	..	..	..	5501
(2) No. of Dwelling Houses which were inspected and recorded under the Housing Consolidated Reg. 1925	..	..	..	..	..	97
(3) No. of Dwelling Houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	..	..	..	..	..	156
(4) No. of Dwelling Houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	..	..	..	..	..	2678

2.—REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES :—

No. of Defective Dwelling Houses rendered fit in consequence of informal action by the Local Authority or their Officers	1977
--	----	----	----	------

3.—ACTION UNDER STATUTORY POWERS :—

A.—Proceedings under Section 3 of the Housing Act, 1925.

(i)	No. of Dwelling Houses in respect of which Notices were served requiring repairs	16
(ii)	Number of Dwelling Houses which were rendered fit after service of formal notices—	
	(a) By Owners <i>Complete</i> ...	16
	(b) By Local Authority in default of Owners.. .. .	—
(iii)	No. of Dwelling Houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of Intention to close	—

B.—Proceedings under Public Health Acts.

(i)	No. of Dwelling Houses in respect of which Notices were served requiring defects to be remedied	277
(ii)	No. of Dwelling Houses in which defects were remedied after formal notices—	
	(a) By Owners	318
	(b) By Local Authority in default of Owners.. .. .	—

Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925 :—

During the year five representations were made with a view to the making of Closing Orders.

Closing orders were made in respect of the premises affected by these representations.

Closing Orders were determined in respect of two dwelling-houses which were made fit subsequent to the Closing Orders.

No Demolition Orders were made during the year.

(b) HOUSING CONDITIONS.

Blackburn, compared with many other industrial towns, is fortunate in the general housing of its inhabitants. The two or three-roomed type of house is in the minority ; the Census, 1921, gave the number as 2,125, which is equivalent to 6·3% of houses inhabited at the end of 1930. The four to five-roomed type of house makes up the majority.

The most usual defects discovered in the course of routine housing inspections are : (1) Dampness, due to defective roofs, pointing, etc. ; (2) defective water-closets ; (3) Defective sash-cords and frames ; (4) defective plaster and floors, cracked ceilings.

SUFFICIENCY OF SUPPLY OF HOUSES.

There is a shortage of houses at reasonable rents, a difficulty which the Corporation is attempting to meet by building a greater number of the smaller and more cheaply rented type of house in preference to the larger type.

Until the Census figures are available no accurate forecast can be made as to the population. It is not, however, unreasonable to presume that industrial depression, the erection of small residential property just beyond the confines of the Borough, and the falling birth-rate, will have brought about a fall in population.

No difficulties have been experienced in the way of providing suitable sites for new houses.

During the year 190 houses have been built by the Corporation and 89 by private enterprise. At the end of the year 134 Corporation Houses and 95 private enterprise houses (none of which were state aided) were in the course of erection.

Number of Houses demolished under the Town's Improvement Clauses Act, 1847						...	...	...	...	...	...	...	<i>Nil</i>
Any action taken in respect of Temporary Buildings						...	...	...	...	...	...	...	<i>None</i>
No. of Houses completed and occupied during 1930, including those :—													
(a) Built by the Corporation						...	...	...	...	...	...	...	190
(b) Built by Private Enterprise						...	...	...	...	...	...	...	89
(c) Number of Houses under latter heading towards which a State subsidy was paid						...	...	...	...	...	...	...	<i>Nil</i>
(d) Number of Houses at the end of 1930 in course of erection (1) by the Corporation; (2) by private builders, and the number of these which are State aided :—													

(1) Corporation ; Contracts let for the erection of 112 houses.

(2) 93 (none State-aided).

- (e) Number of Houses completed and occupied on the various housing estates of the Council, together with the number under each Ministry of Health type, *e.g.*, parlour type, etc.

Type.	Green Lane.	Brownhill.	Roe Lee.	Intack.
B. 3 Parlour, 3 Bedrooms ...	104	96	...	26
A. 3 Non-Parlour, 3 Bedrooms	32	134	54	83
A. 2 Non-Parlour, 2 Bedrooms	...	44	40	80
A. 2 Flats ... ..	...	28	...	28
	—	—	—	—
	136	302	94	217
	—	—	—	—

Type.	Whitebirk New.	Hollin Bridge St.	Hollin Street.	Hamilton Street.
B. 3 Parlour, 3 Bedrooms ...	...	...	..	...
A. 3 Non-Parlour, 3 Bedrooms	170	...	34	28
A. 2 Non-Parlour, 2 Bedrooms	108	16	20	24
A. 2 Flats ... ..	...	...	...	...
	—	—	—	—
	278	16	54	52
	—	—	—	—

- (f) The Rents of the various Corporation Houses are as follows :—

Parlour, 3 Bedrooms	...	...	18/4 and 17/6 per week
Non-Parlour, 3 Bedrooms	..	17/6, 16/8, 16/5, 15/8, 14/3, 13/11,	12/10, 12/-.
Non-Parlour, 2 Bedrooms	...	...	12/6, 11/5 and 10/7 per week
Flats	...	...	9/7

(Inclusive of Rates).

- (g) No. of Applicants for Corporation Houses on the waiting list at the end of 1930 :—

11 for Parlour 3-Bedroom Type.
 31 for Non-Parlour 3-Bedroom Type (large).
 348 for Non-Parlour 3 Bedroom Type (small).
 952 for Non-Parlour 2 Bedroom Type.

Total ... 1342

OVERCROWDING.

Overcrowding in the Borough is not unduly prevalent, the density of population for the town (1921 Census) being 36·7 persons per acre. The average rooms per person is 1·12.

Such cases of overcrowding as have been brought to the notice of the Department have been due either to (1) bad distribution of the family in the available rooms, and (2) to the sub-letting of a room, or portion of the house, to another family. This latter type of overcrowding is, as a rule, due to the sub-tenants being unable to pay the rents of available houses.

Cases of overcrowding have been dealt with by redistribution of the members of the family in the rooms available, or by the families concerned securing more commodious accommodation, either in Corporation or privately-owned houses. At the end of the year three cases of overcrowding known to the Department remained unabated.

The problem of overcrowding, although rare in Blackburn, presents many difficulties, inasmuch as the families concerned are living under overcrowded conditions through financial inability to secure better accommodation. It is obviously a useless and harsh procedure to serve a formal notice to abate overcrowding, which will not only fail to achieve its purpose, but will further increase the sufferings of the helpless individuals concerned.

FITNESS OF HOUSES.

Little difficulty has been experienced in securing improvement of housing conditions under the Public Health Acts, or under the Housing Acts, 1925 and 1930.

For the purpose of sanitary inspection the town is divided into five areas, each of which is systematically inspected, street by street, by the Inspector responsible. Defects found are entered on a housing schedule, the owners concerned are then interviewed by the Chief Sanitary Inspector, who points out the nature of the defect. Verbal notice is generally effective; if not, written informal notice is sent, and, where necessary, a formal notice served. This method of street, or "block" inspection has been in force in the Borough for six years, and has resulted in early ascertainment and remedy of the more common housing defects.

The number of houses in the Borough without adequate internal water supply, or without adequate water-closet or other sanitary accommodation, is negligible.

UNHEALTHY AREAS.

The largest unhealthy area in the district comprises 11 houses.

BYE-LAWS RELATING TO HOUSES.

The Bye-Laws in force in the Borough and relating to houses have been recently revised and are adequate.

HOUSES LET IN LODGINGS.

The register contains particulars of 91 houses let in lodgings, with a total of 490 rooms which provide accommodation for slightly over 1,000 individuals. Although a few of the tenants occupy this type of accommodation from choice, the majority are compelled to do so through financial circumstances.

In the Report for 1929 it was stated that the Council had adopted a vigorous policy with respect to this class of dwelling, and were strictly enforcing the bye-laws. In pursuance of this policy 58 premises have been reported to the Council for various breaches of the bye-laws in respect of which 55 notices have been served. The notices contained a total of 290 breaches, of which 203 had been remedied by the end of the year.

Three of the premises reported to the Council have since been converted into private dwellings, in consequence of which the notices were not served.

The most common infringements of the bye-laws were : (1) Inadequate accommodation for the preparation and cooking of food.

In many instances the sole cooking accommodation consisted of a small bedroom range, inadequate for cooking purposes. The majority of the rooms have now been provided either with gas cookers or slow combustion stoves fitted with oven, pan ring, and small open grate. The tenants express satisfaction with this type of stove, which is economical of fuel, affords adequate warmth, and permits cooking of a satisfactory meal.

(2) Adequately ventilated and fly-proof accommodation for the storage of food.

Many of the rooms possessed only shelves, or, at the best, old boxes, as food stores. These have now been replaced by properly constructed cupboards, communicating, wherever practicable, with the external air.

(3) In many cases accommodation provided was inadequate for the washing of clothes.

Proceedings were twice instituted during the year for non-compliance with notices. In both cases the Bench took a serious view of the offences and inflicted fines totalling £5, in addition to costs. The penalties imposed stimulated the owners of this class of premises to a more speedy compliance with the requirements of the notices served upon them.

It would be of great assistance to the Local Authority if powers were available to require registration of houses let in lodgings. Section 78 of the Public Health Act, 1875, confers this power in respect of common lodging houses, and Section 79 of the Local Act, 1901, requires annual application for the renewal of the registration of every common lodging house, and empowers the Corporation to withhold registration if the premises or keeper are unsuitable. These powers are eminently desirable in respect of houses let in lodgings, the appointments and amenities of which are, on the whole, of an infinitely lower order than those provided in the common lodging house.

In some of the premises let in lodgings a weekly rent of 13/- is charged for a single room, described as "furnished." In most of the houses the furniture provided consists of little more than a dilapidated chair, table and bedstead, the latter occasionally fitted with a worn-out mattress and a few ragged bed-clothes.

Notwithstanding the unsatisfactory nature of the accommodation, the average weekly rental per room is 8/5.

As instances of the profits accruing from the business, one house in Blackburn rated at £52 per year is let in rooms at an aggregate yearly rental of £380; another such house, rated at £19, gives a gross yearly return of £180.

As the rentals demanded necessitate many families depriving themselves of all but the barest essentials of life, there is need for legislation to control the rents charged.

COMMON LODGING HOUSES.

There are 19 Common Lodging Houses in the Borough, which provide accommodation for 733 persons.

During the year five additional Common Lodging Houses were registered under powers obtained in Blackburn Corporation Act, 1929, Sec. 82.

In all these houses the domestic conveniences are of a much higher standard than those provided at the majority of houses let in lodgings. Facilities for the storing and preparation of food, for personal ablution, etc., are in most cases satisfactory.

The bye-laws relating to these premises are adequate.

TENTS, SHEDS, CARAVANS, ETC.

At the end of the year there were 51 caravans in the Borough used as human habitations.

Constant sanitary survey is necessary if the caravans and their surroundings are to be kept in a cleanly and sanitary state.

During the year 273 visits were paid to this class of dwelling, the majority of which were maintained in a sanitary state.

The general cleanliness of the travelling vans which came to Blackburn during the Easter holidays was satisfactory.

The bye-laws in force are adequate.

UNDERGROUND SLEEPING ROOMS.—Housing Act, 1925, Section 18 (1).

There are no underground sleeping rooms known to the Department.

CANAL BOATS ACTS, 1877 and 1884.

Eighty-five boats were inspected during the year. There are 52 boats on the register. One boat has been re-registered, owing to a change of owner.

Two infringements of the Acts have been detected as follows :—

Two boats in a leaky condition. Two statutory notices have been served notifying the owners of the infringements, and the requirements have been carried out. No case of infectious disease occurred, and there has been no detention of boats for cleansing or disinfection.

OFFENSIVE TRADES.

The number of offensive trades within the Borough is 29, of which 17 are bone, and rag and bone dealing, four are fat extraction or fat rendering, two are gut-scraping, four are tripe-boiling, and two knackerings.

Nuisances arising in connection with offensive trades are influenced by the amount of care exercised in the storage of the raw material and waste products. Careless methods of storage and production have been responsible for the majority of nuisances reported, and attention paid to these details has resulted generally in abatement of the nuisance complained of.

SANITARY ACCOMMODATION.

(1) *Number of Closets of each type at the end of 1930 :—*

Privies	...	...	...	...	...	...	12
Pail Closets	...	...	...	...	...	...	119
Slop Water Closets	...	...	...	...	...	...	2191
Fresh Water Closets	...	...	...	...	...	...	38135
							<hr/> 40457 <hr/>

(2) *Conversions carried out during 1930 :—*

Pail Closets by Owners	...	...	...	...	1
Pail Closets by Corporation	...	...	...	...	—
Wet Pits by Owners	...	...	...	...	2
Tipplers by Owners...	...	...	...	...	31
Tipplers by Corporation	...	...	...	...	1
					—
					35

(3) *New Sewers laid during 1930 :—*

12-inch sewer	...	...	...	...	158 yards.
9-inch sewer	...	...	...	...	1652 yards.
6-inch sewer	...	...	...	...	21 yards.

(4) *Ashpit and Ashtub Conversions :—*

No. of Ashpits Abolished	...	...	...	...	...	...	4
No. of Bins substituted in lieu of same	...	...	...	...	...	...	4

Approximate :—

No. of Ashbins in use...	...	...	...	...	...	...	33306
No. of Dry Ashpits in use	...	...	...	...	...	...	15
No. of Wet Ashpits in use	...	...	...	...	...	...	1
No. of Excreta Pails in use	...	...	...	...	...	...	150
No. of Tanks in use	...	...	...	...	...	...	9

SCAVENGING.

The acquisition of a second mechanical refuse collecting vehicle has greatly improved the efficiency in the collection of house refuse from the outlying districts, with a consequent reduction in cost.

The appended Table gives a summary of scavenging work carried out during the year :—

					<i>Loads.</i>	<i>Tons.</i>	<i>Cuts.</i>	<i>Qrs.</i>
House Refuse	...	...	...	...	15414	25119	6	3
Market Refuse	...	...	...	...	769	923	8	0
Midden Refuse	...	...	...	...	17	22	13	0
Shop and Trade Refuse	...	...	...	...	842	809	8	2

SANITARY INSPECTION OF THE AREA.

The appended Tables classify, in tabular form, inspections carried out by the Sanitary Inspectors during the year, their findings and actions taken in respect thereof.

TABLE 13.

INSPECTION WORK.

	1929	1930
No. of Complaints by Inhabitants	324	374
No. of Complaints referred from other Departments ..	71	101
No. of Special Inspections for suspected nuisances ..	36	7

No. of Nuisances Discovered as Result of :—

Complaints by Inhabitants	725	1086
Visiting Cases of Infectious Diseases	259	237
Special Inspections	20	42
Complaints from other Departments	91	125
Notifications of H.M. Inspector of Factories ..	10	32
Routine Inspection Visits	2654	2378
Housing and Town Planning Inspections	1251	2049
Total number of Defects found	5231	5949
Total number of Defects remedied	4356	5220
No. of Informal Notices Served	1537	2444
No. of Formal Notices Served	276	377
No. of Informal Notices complied with	1162	1977
No. of Formal Notices complied with	212	318
No. of Interviews	350	355
No. of Letters sent out	85	127

Sanitary improvements made and defects remedied under the supervision of the Sanitary Inspectors :—

TABLE 14.

DWELLING HOUSES.

Insufficient closet accomm.	6
Water supply improved	1
Cleansed and limewashed	90
Overcrowding abated	2
Damp and defective house, walls, roofs, etc.	675
Defective gutters and down- spouts	735
Cleansing dirty floors	29
" " woodwork	5
" " dirty yards	87
" " bedding	5
" " windows	—
" " gully traps	23
" " cellar areas	3
Obstructive buildings removed ..	1
Defective sink waste pipes	131
Defective dishstones	34
Waste pipes disconnected from drain	2
Yards and passages reflagged	7
Flooding of houses	—
Yards badly paved or flagged	125
Insufficient ventilation of rooms ..	1
Defective chimney flues	30
Window sash frames, cords, internal walls, ceilings, floors, stairs, fireplaces, doors, cup- boards to be repaired	1215
Dangerous and defective chim- ney stacks	169
Fractured internal walls	19
Gas pipes repaired	9
Water pipes repaired	37
Yard division walls	140
Defective and bulging external walls	131
Dry rot	—
Outbuildings repaired	129

BAKEHOUSES.

Cleansed and limewashed	21
Sanitary accommodation im- proved	—
Drains repaired	—
Animals removed	—
Other nuisances abated	1

DAIRIES, COWSHEDS, AND
MILKSHOPS.

Reconstructed	1
Dairy	—
Middenstoads	—
Floors repaired	6
Improved Lighting	—
Improved ventilation	—
Improved drainage	—
Cubic space increased	—
Internal walls and ceilings re- paired	10
Improved yard space	—

ICE CREAM MANUFACTORIES.

Cleansing and limewashing	84
Sanitary conditions improved	24

SCHOOLS.

Playgrounds—repairs to drains ..	—
" repairs to asphalte.	—
" repairs to paving ..	—
" repairs to flags	—
Urinals repaired or improved	10
Sanitary accommodation repaired or improved	10

WORKSHOPS & WORKPLACES.

Cleansed and limewashed	8
Provided with sufficient sanitary accommodation	—
Sanitary condition improved	6
Ventilation improved	—
Overcrowding abated	—
Drains repaired	—
Other nuisances abated	—

DRAINS.

Re-layed	48
Cleansed or repaired	218
Intercepting traps provided	—
Soil pipes repaired	6
Self-cleansing gullies provided ..	31

WATER CLOSETS.

Cleansed	109
Repaired	117
Cisterns and flushing fittings re- paired	214
Provided in substitution of slop- water closets	26

PAIL CLOSETS.

Nuisance abated	—
Converted from privies	27

OFFENSIVE TRADES PREMISES.

Limewashed	29
------------------	----

COMMON LODGING-HOUSES.

Cleansed and limewashed	33
Other nuisances abated	1

TABLE 14—(Continued).

OFFENSIVE ACCUMULATIONS.		ASH RECEPTACLES.	
Removed	89	Repaired	—
		Portable receptacles provided....	235
ANIMALS KEPT AS TO BE A NUISANCE.		STABLE PREMISES.	
Nuisances abated	14	Removing manure	13
		Reconstructed middensteads	3
SEWERS.		HOUSES LET IN LODGINGS.	
Cleansed.....	23	Nuisances abated	31
SLOP-WATER CLOSETS.		CANAL BOATS.	
Nuisances abated	26	Cask for water provided	—
Converted to W.C.'s	26	Certificates renewed	—
		Leaky condition	2
ASHPITS.		Repairing and Painting	—
Abolished	222	Masters without Certificates	—
		Unsuitable Certificates	—

DETAILS OF INSPECTION WORK.

Schools.....	5	Dirty Houses	148
Hospitals	—	Common Yards, Back Roads and Passages	5775
Tents, Vans, Sheds.....	273	Infected Houses	4938
Factories	142	Housing and Town Planning Acts...	4198
Workshops	701	Fishmongers and Greengrocers....	374
Workplaces	107	Ashes Receptacles	327
Bakehouses—Ordinary	326	Food Preparing and Storing Places.	249
Underground	4	Outworkers' Premises.....	4
Cowsheds	252	Enquiries <i>re</i> Milk Supply	14
Dairies and Milkshops	2054	Dwelling Houses <i>re</i> Nuisances	4327
Ice Cream Premises	505	Samples of—	
Offensive Trade Premises	183	Water procured	7
Fried Fish Shops.....	559	Milk purchased for Sediment Test	471
Common Lodging Houses	524	Milk purchased for Bacterio- logical Examination	68
Stable Premises	608	Milk purchased for Bacterio- logical content.....	302
Offensive Accumulations	78	Freezing of Closets.....	—
Animals so kept as to be a nuisance	16	Labelling of Condensed Milk Tins.	704
Sewers	23	Insufficient Water Supply.....	5
Street Gullies	177	Miscellaneous	135
Canal Boats.....	87		
Smoke Observations	156		
Theatres and Cinemas	62		
Houses Let-in-Lodgings.....	2053		

TABLE 15.

FACTORIES, WORKSHOPS AND WORKPLACES.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

PREMISES. (1)	NUMBER OF		
	Inspections (2)	Written Notices (3)	Prosecutions (4)
FACTORIES (Including Factory Laundries)	142	5	...
WORKSHOPS (Including Workshop Laundries)	701	6	...
WORKPLACES (Other than Outworkers' premises)	107	..	...
TOTAL	950	11	...

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS. (1)	Number of Defects.			Number of offences in respect to which prosecut'ns were instituted. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness	15	16	...	...
Want of Ventilation ... ..	...	...	...	...
Overcrowding	1	1	...	...
Want of drainage of floors ... ..	...	...	...	...
Other Nuisances	7	6	...	...
<i>Sanitary Accommodation :—</i>				
Insufficient... ..	7	7	...	...
Unsuitable or defective	17	5	...	...
Not separate for sexes ... ..	—	—	...	...
<i>Offences under the Factory and Workshops Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101) ... ..	...	...	...	...
Other offences	22	19	...	...
(Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921.)				
TOTAL	69	54	...	...

FACTORIES AND WORKSHOPS.

Tables 16 and 17 contain particulars of matters referred by the Factory Inspector and action taken by the Health Department in respect thereof.

TABLE 16.

(a) "Sanitary Accommodation."

1.—Insufficient accommodation for females, *i.e.*, two in yard and one in winding-room for 108 females.

2.—Unsatisfactory flushing (*i.e.*, by hand buckets only) in the yard conveniences.

Notice sent. The trough closets were demolished, and a sufficient number of modern water closets were built in the yard.

(b) "Sanitary conveniences for females in first spinning-room not provided with inside fastenings."

Notice sent, and bolts were fitted.

(c) "The sanitary conveniences, one in the shed and one in the warehouse, are not ventilated to the outside air. It should be noted that there is a pressure system of ventilation in the shed."

Notice sent, and suitable duct vents were fixed.

(d) "Limewashing of bakehouse overdue. Last date in March, 1929."

Notice was sent and the limewashing was done at once. •

(e) "Limewashing of bakehouse is overdue. It was last carried out in May, 1929."

Notice was sent and the limewashing was done at once.

(f) "Limewashing of ceiling of bakehouse not carried out during the past six months. Last date, May 11th, 1929."

Notice was sent, and the ceiling was limewashed and walls were washed.

(g) "Sanitary accommodation: the existing arrangements are not suitable, in that the conveniences are not conveniently accessible."

The conveniences are privies. The owners were requested to abolish them and construct a modern type of water closet upon a site where the sewer is available. This they have promised, and the scheme is now under review.

(h) "Sanitary accommodation for women in Winding Department and Top Ring Room not suitable, owing to:—

1.—Absence of interior fastenings;

2.—Conveniences not separate;

3.—Absence of seats;

4.—Leakage of water in Winding Department (fungoid growths on the wall).

Notice was sent, and the required work and repairs were carried out.

(i) "Only one sanitary convenience was provided for about 30 female employees."

A notice was not required, as an existing sanitary convenience was added to the accommodation already provided, on request.

TABLE 17.

WORKSHOPS.

- (a) " Walls dusty, and cleaning appears necessary."
Notice sent. Walls limewashed.
- (b) " Walls require cleansing."
Notice sent. Walls limewashed.
- (c) " Walls and ceilings require to be limewashed."
Work done, notice not required.
- (d) " Workshop roof appears to be defective, so as not to be weatherproof."
Notice sent. Roof repaired.
- (e) " Walls and ceiling require limewashing."
Notice sent. Walls, etc., limewashed.
- (f) " The basement workroom in which four persons are normally employed is over crowded."
Notice sent. Overcrowding abated.

OUTWORKERS.

During 1930 four lists of outworkers were received from four makers of wearing apparel. The lists contained the names of three contractors and seven workers. The premises were inspected and were found to be satisfactory.

SMOKE OBSERVATIONS.

There are 181 factory chimneys in the town, 103 of which are provided with smoke preventing appliances. The types of appliances are as under :—

Proctor's Mechanical Stokers	..	..	..	..	..	75
Leach Mechanical Stokers	..	..	..	..	..	6
Bennis Mechanical Stokers	..	..	..	..	..	3
Hodgkinson Mechanical Stokers	..	..	..	..	..	3
Whittaker's Mechanical Stokers	..	..	..	..	..	1
G.S.E. Mechanical Stoker	..	..	..	..	..	1
Sirocco Fans	..	..	..	..	..	3
Super Heaters	..	..	..	..	..	7
Edgar Allen Green's	..	..	..	..	..	4

During the year 156 smoke observations were made, and in 18 smoke was emitted in excessive quantities.

In cases where smoke has been emitted in excessive quantity, the premises are visited by the sanitary inspectors, who gives verbal notice to abate, investigates the cause and advises as to prevention. In all instances this course of action has been sufficient to secure abatement.

The standards of smoke permissible from a factory chimney in Blackburn are as follows :—

One boiler..	..	..	..	4 minutes black smoke in the hour.
Two boilers	..	..	..	5 „ „ „
Three boilers	..	..	..	6 „ „ „
Four boilers or more	..	..	..	7 „ „ „

THE SANITARY CONDITION AND WATER SUPPLY OF SCHOOLS.

The following Table gives details of the Sanitary Accommodation provided at the Schools in the Borough :—

TABLE 18.

	School Population	Water Closets				Urinals		Pail Closets	No. of Children to each W.C.
		No. of pedestal W.C.'s flushed with separate cisterns	No. of pedestal W.C.'s flushed with automatic cisterns	No. of trough closets together with No. of seats flushed		No. with sparge pipes	No. without sparge pipes		
				Automatically	By Hand				
Accrington Road C.	528	27	..	..	..	18	..	..	20
Audley C.	675	39	..	..	..	20	..	..	17
Bank Top C.	319	2	..	..	12	6	10	..	23
Bangor Street C.	379	..	25	..	..	18	..	..	15
Blakey Moor Central	712	7	28	..	..	20	..	..	20
Cedar Street C.	386	18	..	..	..	16	..	..	21
Christ Church C.E.	569	..	15	6	5	7	8	..	22
Emmanuel C.E.	380	..	..	21	..	..	10	..	18
Furthergate C.	309	..	..	14	..	8	..	..	22
Four Lanes End C.	130	..	..	8	..	..	10	..	16
Griffin C.E.	304	2	12	..	..	10	6	..	22
Holy Trinity C.E.	439	1	16	..	..	..	15	..	25
Lower Darwen C.	116	..	..	9	..	..	5	..	13
Mill Hill C.	286	..	16	8	..	..	20	..	12
Moss Street C.	334	2	11	..	..	5	5	..	26
C. of E. Central	422	2	13	..	..	18	..	..	28
Park Road C.	434	13	..	..	..	..	5	..	33
Regent Street Special	15	2	6	..	..	3	..	..	2
St. Aidan's C.E.	291	12	4	..	..	..	10	..	18
St. Alban's R.C.	865	21	..	..	..	..	13	..	41
St. Alban's Higher Grade (Boys)	112	6	..	..	..	..	10	..	19
St. Anne's R.C.	769	3	..	20	..	..	9	..	33
St. Andrew's C.E.	216	..	..	11	..	..	6	..	19
St. Barnabas' C.E.	425	..	13	..	..	..	8	..	33
St. Bartholomew's C.E.	255	..	..	13	..	..	12	..	20
St. Gabriel's C.E.	126	..	..	7	..	..	4	..	18
St. James' C.E.	226	1	9	..	..	..	8	..	22
St. James' C.E. (Black-a-Moor)	90	..	3	4	..	8	..	..	13
St. James' C.E. (Guide)	106	..	..	10	..	2	6	..	11
St. John's C.E.	612	..	..	23	..	9	..	..	22
St. Joseph's R.C.	542	2	..	14	..	..	9	..	34
St. Luke's C.E.	286	..	14	..	..	..	9	..	20
St. Michael's C.E.	229	..	..	6	6	6	..	..	19
St. Matthew's C.E.	349	1	..	12	..	..	10	..	27
St. Mary's R.C.	515	1	..	10	..	4	4	..	47
St. Paul's C.E.	374	..	13	..	..	20	20	..	29
St. Peter's C.E.	272	15	..	..	..	..	15	..	18
St. Peter's R.C.	460	2	25	..	..	17	..	..	17
St. Stephen's C.E.	325	1	..	21	..	..	7	..	15
St. Silas' C.E.	367	..	16	..	..	6	6	..	23
St. Thomas' C.E.	526	..	12	..	..	..	12	..	44
Sacred Heart R.C.	132	1	..	8	..	2	2	..	15
Wensley Fold C.E.	276	2	8	..	..	12	..	..	28
Witton C.E. (Infants)	60	..	6	..	..	6	..	..	10
Roe Lee Park C.	239	17	..	..	..	18	..	..	14
TOTALS		200	265	225	23	259	274	..	..

Water at the Schools is drawn from the Corporation mains and is satisfactory as regards quantity and quality.

A sanitary survey of each school is made three times each year by the Assistant School Medical Officer, who reports thereon to the School Medical Officer who is also Medical Officer of Health. Any sanitary defects found are reported to the Education Authority, who take such action as may be necessary.

Absences from school due to sickness are reported to the School Medical Department through the School Attendance Officers.

Much valuable information regarding the existence of non-notifiable infectious disease has reached the Health Office through the agency of Head Teachers and School Attendance Officers.

Convalescents from infectious disease and contacts who have been excluded from school are not readmitted until the Head Teacher receives a clearance certificate issued from the Health Department. Children convalescent from infectious disease are excluded from school for varying periods following discharge from hospital, or, in the case of children who have been nursed at home, following disinfection of the home. The period of exclusion depends upon the disease from which the child has suffered.

A full survey of the health of the school-child is contained in the Annual Report on the work of the School Medical Service.

THE TESTING OF DRAINS.

No. of Smoke Tests	..	..	..	..	..	..	83
No. of Water Tests	..	..	..	..	..	..	53
No. of Colour Tests	..	..	..	..	..	..	63
Breaking Down	..	..	..	..	..	..	36
Inspections made while work was in progress	..	..					136
Total number of Defects found	..	..	..	..	..		104
No. of Informal Notices Served	..	..	..	..	..		69
No. of Formal Notices Served	..	..	..	..	..		5
No. of Defects Completed	..	..	..	..	..		87
No. of Defects outstanding at end of 1930	..	..	..	..	..		17

THE RAG FLOCK ACTS, 1911 & 1928.

There are three premises in Blackburn where rag-flock is used. The flock is not manufactured locally, but is purchased under guarantee of Government Standard of Cleanliness.

The three premises concerned have been visited in the course of routine district inspections.

DISPOSAL OF THE DEAD.

The arrangements for the disposal of the dead will be adequate for at least a further ten years.

PART III.

Food Supply.

SUPERVISION OF FOOD SUPPLY.

During the year all food-preparing premises and premises engaged in the production or distribution of milk have been visited by the Veterinary Inspector. The Medical Officer of Health has visited all farms competing in the Clean Milk Competition, and has paid frequent visits to dairies, farms and food-preparing premises in the Borough.

The number of farms supplying Certified Milk to Blackburn (3) remains the same as last year, and 19 farms, one more than last year, are supplying Grade " A " Milk to the Borough.

In 1927 2,689 gallons of Grade " A " Milk, and 249 gallons of Certified Milk, were consumed each week by Blackburn residents.

In 1928 the figures were 2,884 and 249 respectively.

In 1929 the figures were 3,121 and 136 respectively.

The quantities for the year under review were 2,702 and 249 gallons of Grade " A " and Certified Milk respectively, a decrease of 419 gallons of Grade " A " Milk per week. This is undoubtedly accounted for by the depression in trade.

REPORT BY THE VETERINARY INSPECTOR (MR. E. J. BURNDRED, M.R.C.V.S., D.V.H.)

FARM AND DAIRY CATTLE INSPECTION.

During the year 252 visits were paid to farms, 433 cowsheds inspected and the udders of 5,393 cows examined.

One cow on a farm in the Borough was found to be affected with tuberculosis of the udder. It was slaughtered, and on post mortem examination, was found to be affected with advanced tuberculosis.

Ten cows showing clinical evidence of tuberculosis were slaughtered.

They were all affected with tuberculosis in an advanced degree.

Thirteen cows were suffering from mastitis, and during the affection the milk was not used for human food.

DAIRIES, COWSHEDS AND MILKSHOPS.

The policy of improving conditions of production and storage, both in methods and equipment, has been continued throughout the year, and as a whole, premises and methods in the Borough have reached a satisfactory standard.

As mentioned in last year's Report, retail purveyors in the Borough have been encouraged to provide two rooms, separate from the house, for the washing and storing of utensils and for storing milk respectively. At the end of the year 28 of the 37 retail purveyors had so adapted their premises.

The walls of both rooms are cemented and the floors concreted, in order to facilitate cleansing. The washing-up rooms are provided with a sink, a galvanised iron rack for the utensils, and hot and cold water. In addition a boiler is installed, heated by gas or primus stove, fitted with a steaming cabinet, boiler and cabinet being so constructed as to be capable of steaming both the large churns and small cans and bottles.

The milk room is fitted with a concrete cooling trough for the churns, and a bracket for the cooler.

During the year frequent visits have been paid to all milk-retailing premises in Blackburn and to many of the milk-producing premises outside the Borough which supply milk for consumption in Blackburn. As a result of these visits the floors of many cowsheds have been reconstructed and various minor improvements effected.

The Clean Milk Competition has done much to foster a spirit of healthy rivalry amongst the producers, the majority of whom conscientiously strive to produce a clean, safe milk.

The Food and Drugs Inspector has visited regularly all shops from which milk is sold.

CLEAN MILK COMPETITION.

There are three classes of competitors for the Clean Milk Awards :—

CLASS I.—Open to all producers of Certified, Grade " A " Tuberculin-Tested and Grade " A " milk sold in Blackburn. The award in this Class is the " Redmayne " Cup, which the winner holds for one year. In addition, he receives and retains a miniature replica of the cup and also a gold medal. This year the cup was won by Mr. R. THISTLETHWAITE, Horden's Farm, Livesey.

There were 16 entries in this Class, an increase of two over the number of competitors in 1929.

Class II is open to producers of non-designated milk whose milk is sold in Blackburn. The award in this Class is the " Porritt " Cup, which is held for one year by the winner, who receives in addition a miniature replica of the cup and also a gold medal, both of which he retains.

The winner in this Class was Mr. G. H. KINDER, Reaps Farm, Mellor.

Class III, the Cup presented by Mr. Alderman GEORGE BURKE, J.P., in 1929, was competed for in 1930. This class is limited to farmers whose main source of livelihood is dairy-farming, and in assessing the awards not only has the quality of the milk been taken into consideration, but due attention has been paid by Mr. Edge, of Wheelton, near Chorley, who kindly acted as judge, to the general farming methods employed.

The winner in this Class was Mr. W. T. WALMSLEY, Close Farm, Pleasington, who holds the cup for one year, and receives in addition a miniature replica of the cup and a gold medal, both of which he retains.

MILK (SPECIAL DESIGNATIONS) ORDER, 1923.

Certified Milk. The number of farms holding the certificate of the Ministry of Health and supplying Certified Milk to Blackburn is three.

Two are local, the other is some distance away, and consequently the milk from the latter is not delivered the same day as it is produced.

The price of the milk ranges from 7½d. to 4d. per pint.

Grade " A " (tuberculin tested) milk is being used at the Corporation Hospital.

Grade " A " Milk. There are 19 farms in the district where Grade " A " milk is produced ; five of these are in the Borough and 14 in the County area. In addition, there are 15 retailers of Grade " A " milk. The prices are 3½d. and 4d. per pint.

Pasteurised Milk. One dairy in the Borough is licensed for the pasteurisation of milk, and dairies obtain supplies from licensed establishments outside Blackburn.

Sterilised Milk, which is not a graded milk, is now sent into Blackburn, from factories outside.

BACTERIOLOGICAL EXAMINATION OF MILK.

(a) *B. Coli*.

Three hundred and seventy-four samples were submitted to the Bacteriologist, Public Health Laboratories, Liverpool. The following is a summary of his findings :—

Bacillus Coli Content :—

Not found in 1 cubic centimetre	185
Found in 1 c.c. only	46
„ 0·1 c.c.	47
„ 0·01 c.c.	35
„ 0·001	18
„ 0·0001	14
„ 0·00001	29

The presence of *Bacillus Coli*, or a member of its group, is an indication of manurial contamination of the milk. The above results show 49·46% clean ; 34·2% with slight contamination, and 16·3% grossly contaminated.

The appended Table gives particulars of *B. Coli* counts month by month :

TABLE 19.

1930	Not Present in 1-C.C.	Present in 1-C.C.	Present in 1/100 C.C.	Present in 1/1,000 C.C.	Present in 1/10,000 C.C.	Present in 1/100,000 C.C.	Present in 1/1,000,000 C.C.
January ..	20	6	2	4	..	1	..
February ..	26	8	4	1	..	..	..
March ..	24	2	1	4	1	..	..
April ..	22	3	2	3	1	..	..
May ..	18	3	3	6	4	2	2
June ..	12	1	5	4	2	1	5
July ..	9	2	4	1	3	3	9
August ..	10	2	5	2	2	..	2
September ..	3	5	3	2	4	3	4
October ..	8	6	12	5	1	4	4
November ..	16	4	6	2	..	..	2
December ..	17	4	..	1	..	..	1
	185	46	47	35	18	14	29

(b) *Tubercle Bacilli* :—

During the year 376 samples of milk were collected and examined for the presence of tubercle bacilli.

The samples were made up as follows :—374 mixed samples were taken in the course of delivery ; two special samples were taken direct from individual cows showing some abnormality of the udder.

Of the 374 mixed samples taken, one contained tubercle bacilli, 321 were negative, and in 52 cases the experimental animal died before a definite diagnosis could be made.

Of the two special samples, one was positive and one negative.

The positive mixed milk was from a farm outside the Borough, and on inspection, a cow affected with tuberculosis of the udder was discovered and was subsequently slaughtered.

Mixed samples of milk supplied to the Royal Infirmary and the Corporation Hospital were taken periodically and examined for the presence of tubercle bacilli, and on each occasion were found to be free.

The percentage of milks sold in Blackburn and found to contain living tubercle bacilli was 0·267.

EXAMINATION OF MILK FOR DIRT.

During the year 523 samples of milk were taken and examined for the presence of dirt.

One hundred and four of these samples were taken from producer-retailers whose premises are within the Borough, and were classified as follows :—

Clean	..	..	..	..	.	..	18 or 17·3%
Fairly Clean	..	..	..	..	..	..	64 or 61·5%
Contaminated	..	..	..	..	..	..	22 or 21·15%

Three hundred and forty-six samples were taken from producer-retailers whose premises are outside the Borough :—

Clean	..	..	..	..	..	..	115 or 33·24%
Fairly Clean	..	..	..	..	..	..	172 or 49·71%
Contaminated	..	..	..	..	..	..	56 or 16·18%
Grossly Contaminated	..	..	..	..	..	..	2 or 0·58%
Very Grossly Contaminated	..	..	..	..	..	..	1 or 0·29%

Seventy samples were taken from retailers who reside in the Borough, but who procure their supplies from producers whose premises are, for the most part, outside the Borough.

Clean	..	..	..	..	..	..	5 or 7.14%
Fairly Clean	..	..	..	..	..	..	37 or 52.85%
Contaminated	..	..	..	..	..	..	24 or 34.28%
Grossly Contaminated	..	..	..	..	..	..	4 or 5.7%

Three samples were taken from retailers who reside outside the Borough :

Clean	..	..	..	..	..	..	1
Fairly Clean	..	..	..	..	..	..	2

Samples examined for dirt are submitted to filtration through a cotton-wool disc. Any departure from absolute cleanliness as indicated by the presence of extraneous material, however slight, on the disc, places the sample in the "contaminated" class. In no case is the milk given the benefit of doubt; if there is suspicion of deposit on the disc the milk is classified as "fairly clean." "Gross contamination" and "very gross contamination" indicate the presence of manure in the milk.

CHEMICAL ANALYSIS OF MILK.

Five hundred and thirty samples of milk, 299 of which were informal, were taken during the year and examined at the Public Health Laboratory, Liverpool. Eleven samples, or 2.07%, were reported not to conform with the standard prescribed by the Ministry of Agriculture. In 1930, eight of the defective samples were found to be considerably below the legal standards. If an informal sample proves to be not genuine on analysis, a formal sample is purchased and submitted to the analyst.

One formal sample presented marked deficiency, and the vendor concerned was prosecuted.

TABLE 20.

AVERAGE COMPOSITION OF MILK SOLD IN BLACKBURN,
YEAR 1930.

MONTH	No. of Samples Taken.	% of Fat	% of other Solids.
January	47	3.90	8.81
February	54	3.76	8.94
March	50	3.95	9.00
April	41	3.81	8.98
May	49	3.88	9.09
June	43	3.69	9.11
July	57	3.81	9.05
August	30	4.03	9.07
September	44	3.85	9.26
October	58	4.04	9.21
November	32	4.12	9.05
December	25	4.10	9.01
Average	530	3.91	9.04

PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS)
REGULATIONS, 1925.

No action was necessary with regard to tuberculous employees in the Milk Trade.

THE PUBLIC HEALTH (CONDENSED MILK) REGULATIONS,
1923 & 1927.

Thirty-eight samples, one of which was not properly labelled, were purchased under the above regulations, and the remainder were found, on analysis, to be genuine.

These samples are included in Table 29, Food and Drugs (Adulteration) Act.

THE ARTIFICIAL CREAM ACT, 1929.

No action has been taken under the above Act.

THE PUBLIC HEALTH (DRIED MILK) REGULATIONS, 1923 & 1927.

No action has been taken under the above Regulations.

SECTION 80 BLACKBURN CORPORATION ACT, 1922.

FOOD PREPARING PREMISES.

This Section reads as follows :—

“ Any premises ordinarily used, or proposed to be ordinarily used, for the preparation or manufacture of sausages, pressed, potted or preserved meat, fish or other food, intended for the purposes of sale, shall be registered by the owner or occupier thereof with the Corporation from time to time in such manner as they may direct, and no premises shall be used for the purposes aforesaid unless the same are so registered, and the Corporation shall have power to refuse registration of any premises where the conditions are unsuitable.”

There are 48 premises registered under the above section, but in addition there are a large number of food preparing premises which are exempt from registration.

Two hundred and forty-nine visits were made to such premises. Generally they were found to comply with requirements.

In certain cases, the necessity for repairs was pointed out, and in other cases suggestions for improvements were made and in all cases improvements were effected.

REPORT OF WORK DONE UNDER THE DISEASES OF ANIMALS ACTS AND ORDERS.

Foot and Mouth Disease. There were eight outbreaks in Great Britain, necessitating the slaughter of 305 animals which were diseased or had been exposed to infection.

This is a great improvement on the preceding three years : 1929, 38 outbreaks, with 3,570 animals slaughtered ; 1928, 138 outbreaks, with 11,441 animals slaughtered ; 1927, 143 outbreaks, with 9,940 animals slaughtered.

There were no outbreaks in Blackburn or district.

Anthrax. There were 391 outbreaks in Great Britain, affecting 443 animals.

Four cases were discovered in Blackburn, two (carcases of cows) at a Knacker-yard, one (carcase of cow) at a farm, and one (carcase of horse) at a stable.

The two cases at the Knacker-yard were both cases of animals which had died at farms in the County Area, and the carcases had been brought to the Knacker-yard for disposal.

During the process of dressing, suspicious signs were noticed, which were immediately notified. I examined material from the carcases and found anthrax bacilli, microscopically.

The carcases were removed under supervision, to the Audley Destructor, where they were cremated. The cases were reported to the County Authorities for their action at the farms, and the knacker premises, vehicle, clothing and utensils of the driver and knacker-man were disinfected. Both men were kept under observation until danger of infection was passed.

The case at a farm in the Borough was notified by the Veterinary Surgeon in attendance.

The carcase was removed to the Audley Destructor and cremated.

The premises were disinfected and the incontact animals kept under observation.

The fourth case occurred in a horse kept by a carting contractor.

This carcase also was removed to the Audley Destructor and cremated. The manure and other material likely to carry infection were also burnt. The premises were disinfected and the incontact animals kept under observation for a few days.

Routine microscopical examination of blood smears from carcases of animals arriving at the Abattoir or Railway Siding in a dead or dying condition was carried out throughout the year. No cases of Anthrax were discovered.

Parasitic Mange. There were 199 outbreaks reported in Great Britain, involving 309 animals. No cases occurred in Blackburn.

Glanders. No cases occurred in Great Britain.

Sheep Scab. There were 479 outbreaks in Great Britain. No cases occurred in Blackburn.

Swine Fever. Two thousand four hundred and eight outbreaks occurred in Great Britain. One case was discovered at the Abattoir. The carcase was cremated and the Ministry of Agriculture was notified.

Tuberculosis. One case of tuberculosis of the udder, and ten cases of tuberculous emaciation were dealt with under the Tuberculosis Order, 1925.

On slaughter they were all found to be affected with advanced tuberculosis, and were totally condemned. The compensation payable, therefore, in all the above cases, was a quarter of the agreed value, or £2/5/0, whichever was the greater.

Cattle Market. The approximate number of animals exposed for sale was :—

<i>Year.</i>	<i>Cattle.</i>	<i>Sheep.</i>	<i>Calves.</i>	<i>Pigs.</i>	<i>Horses</i>	<i>Asses.</i>
1930	6965	8869	2037	573	17	..

<i>Year.</i>	<i>Cattle.</i>	<i>Sheep.</i>	<i>Calves.</i>	<i>Pigs.</i>	<i>Horses</i>	<i>Asses</i>
1929	6947	9552	2291	966	19	...
1928	6432	5655	2041	1045	19	...
1927	9960	9922	2675	1333	...	2½
1926	8092	7410	2285	930	20	...
1925	7171	6962	2346	486	23	...
1924	5609	5608	3493	620	24	...
1923	7716	10026	3040	721	35	...
1922	4650	11289	2681	362	554	...
1921	4681	1913	2812	835	416	...
1920	9341	942	2258	530	365	...
1919	8345	17223	2188	163	269	...

E. J. BURNDRED,

Veterinary and Chief Meat Inspector.

TABLE 21.
TUBERCULOSIS ORDER OF 1925.

	CHRONIC COUGH WITH T.B.	T.B. EMACIATION	T.B. UDDER
January	—	1	—
February	—	—	—
March	—	—	—
April	—	2	—
May	—	1	1
June	—	3	—
July	—	—	—
August	—	—	—
September	—	1	—
October	—	1	—
November	—	—	—
December	—	1	—
	—	10	1

MEAT INSPECTION.

The number of animals slaughtered at the Public Abattoir was 84,001, this being a decrease of 12,636 compared with 1929.

The large waste of food material, due to condemnation of diseased carcasses, was in the main caused by Tuberculosis.

The number of susceptible animals (cattle, calves, pigs) affected with Tuberculosis during 1930 was 424 or 2·38% of those slaughtered.

Corresponding percentages were, in 1929, 2·22 ; in 1928, 2·9 ; 1927, 2·079 ; 1926, 2·15 ; 1925, 1·83 ; 1924, 1·87 ; 1923, 1·64.

Of 1,227 cows slaughtered, 152, or 12·38%, were found to be affected with Tuberculosis in some degree.

Heifers show a lower proportion affected, only 11 out of 531 slaughtered, or 2·07%.

Of 1,301 bulls slaughtered, 38, or 2·9% were affected.

Of 6,591 bullocks, only 52, or 0·78%, were affected.

Calves show a lower percentage still: of 1,372 slaughtered, only 1, or 0·07% were affected.

Of 6,752 pigs slaughtered, 170 were affected, or a percentage of 2·5%.

The number of carcasses in which the disease was so advanced as to necessitate total condemnation was 68, compared with 84, in 1929; 111, in 1928; 107 in 1927; 107 in 1926; 69 in 1925; 85 in 1924; and 54 in 1923.

In 1930 49 carcasses of cattle were totally condemned as being unfit for human food, and of these, 42 were affected with Tuberculosis.

Liver fluke, both in cattle and sheep, again showed itself as a national scourge.

It accounted for the condemnation of 5,247 livers, compared with 6,249 in 1929; 6,042 in 1928; 3,836 in 1927; and 2,335 in 1926.

In addition to the work at the Abattoirs, visits were regularly paid to the only private slaughterhouse in the Borough, butchers and other meat shops, food preparing premises, wholesale and retail fish markets and meat market.

TABLE 22.

NUMBER OF ANIMALS SLAUGHTERED AT THE PUBLIC ABATTOIR.

1930.	Beasts	Sheep	Calves	Pigs	Goats	Total
January	1074	6701	83	1018	..	8876
February	848	5096	118	607	..	6669
March	812	4706	132	484	..	6134
April	926	6003	191	446	..	7566
May	670	5103	59	261	..	6093
June	588	5349	51	183	..	6171
July	722	6757	107	243	..	7829
August	656	5366	105	260	..	6387
September	677	5051	99	353	..	6180
October.. .. .	950	5891	171	779	..	7791
November	808	4843	148	656	..	6455
December	919	5361	108	1462	..	7850
TOTAL	9650	36227	1372	6752	..	84001

NUMBER OF CARCASSES AND PORTIONS OF CARCASSES
BROUGHT TO THE ABATTOIR.

TABLE 23.

1930.	CARCASSES.			BEEF		
	Beef	Mutton	Pork	Fore Qrs.	Hind Qrs.	Buttocks
January	8	30	84	...	...	...
February .. .	8	24	31	1	1	...
March .. .	7	24	34	1	1	...
April .. .	8	30	26	...	...	...
May .. .	9	12	20	2	...	...
June .. .	10	...	23	1	1	...
July .. .	25	...	28	1	1	...
August .. .	12	12	19	...	...	...
September .. .	8	6	33	1	1	...
October .. .	3	24	40	...	...	...
November .. .	2	24	36	...	...	...
December .. .	4	30	120	...	1	...
TOTALS	104	216	494	7	6	...

	CASES OF			Lengths of Pork	Legs of Pork	Tins of Meat
	Kidneys	Pork	Liver			
January .. .	30	...	...	86	72	.
February .. .	23	...	...	70	36	...
March .. .	30	...	...	40	20	...
April .. .	12	...	...	50	25	..
May .. .	12	...	...	...	...	...
June .. .	10	...	...	...	...	...
July .. .	9	...	...	...	...	...
August .. .	6	...	...	...	...	..
September .. .	8	...	...	...	...	...
October .. .	8	...	...	73	26	..
November .. .	9	...	...	80	28	..
December .. .	12	...	...	166	82	...
TOTALS ..	169	...	...	565	289	...

TABLE 24.

ORGANS AND PARTS OF CARCASSES EXAMINED, REJECTED AND DESTROYED, FOR DISEASES OTHER THAN TUBERCULOSIS.

Disease or Condition	Diaphragm	Tongues	Heads	Lungs	Hearts	Livers	Stomachs	Udders	Intestines	Kidneys	Tails	Lbs. of Meat
Fluke	5247	..	..	..	..	..	..
Cirrhosis	368	..	..	..	..	..	..
Angioma	46	..	..	..	..	..	..
Unsound	30	36	..	10	1	2	..	..	..	1323
Abscesses	3	..	..	23	14	..	..	1	..	..
Actinomycosis	7	..	..	..	..	..	..	..	..	..
Mammitis	97	..	..	..	..
Parasitic	1	25	..	41	..	..	..	5	..	..
Nephritis	42	..	..
Bruised	2513
Congested	1	..	..	..	..	..	..	..	..
Pericarditis	9	..	..	..	..	..	..	..
Pneumonia	18	..	..	..	..	..	..	..	..
TOTAL ..	—	—	41	80	9	5735	15	99	—	48	—	3836

TABLE 25.
DISEASED CARCASSES EXAMINED, REJECTED AND DESTROYED FOR DISEASES, ETC.,
OTHER THAN TUBERCULOSIS.

CARCASSES.

BEEF.		MUTTON.		VEAL.		PORK.	
DISEASE.	No.	DISEASE.	No.	DISEASE.	No.	DISEASE.	No.
Septicæmia	2	Congested	55	Immature..	50	Peritonitis..	1
Pneumonia	1	Œdematous	41	Joint Ill ..	20	Parturition ..	1
Septic Mammitis	1	Pneumonia	3	Œdematous	2	Swine Fever ..	1
Congested	1	Bruised ..	1	Septicæmia	5	Septicæmia ..	4
Parturition	1	Parturition	2	Scour ..	1	Pyæmia ..	1
Staggers ..	1	Nephritis ..	1	Jaundice ..	2	Pericarditis ..	1
		Parasitic ..	1	Congested..	9	Jaundice ..	4
		Cascous Lymphangitis	1			Parasitic ..	1
		Septicæmia ..	4			Toxæmia ..	1
		Asphyxia ..	3			Swine Erysipelas	2
		Unsound ..	1			Congested..	2
						Nephritis ..	2
						Œdematous ..	1
	7		113		89		22

TABLE 26.

TUBERCULOUS CARCASSES EXAMINED AND REJECTED.

	Cows		Heifers		Bulls		Bullocks		Calves		Sheep		Pigs		Fowl		Totals	
	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected
1930																		
January ..	10	2	...	...	3	...	10	1	...	...	...	...	7	...	3	...	33	6
February ..	14	3	...	...	1	...	8	1	...	...	...	...	9	...	1	...	33	5
March ..	11	2	...	...	4	...	7	1	...	...	...	...	15	1	1	...	38	5
April ..	13	2	1	1	3	...	2	...	...	...	...	...	5	...	...	...	24	3
May ..	11	3	2	...	4	1	4	...	...	...	...	...	10	1	...	...	31	5
June ..	14	1	1	...	3	...	5	...	...	...	...	...	5	1	...	...	28	2
July ..	18	4	...	...	3	...	1	...	...	...	...	...	22	1	...	...	44	5
August ..	8	2	1	...	4	...	1	...	...	...	...	...	17	3	...	...	31	5
September ..	13	2	...	...	4	...	3	...	1	1	...	...	12	...	...	...	33	3
October ..	12	7	4	1	5	...	3	...	...	...	...	...	20	6	...	...	44	14
November ..	15	2	1	1	2	...	4	2	...	...	...	...	22	5	...	...	44	10
December ..	13	2	1	1	2	...	4	...	...	...	...	...	26	7	...	...	46	10
TOTALS ..	152	32	11	4	38	1	52	5	1	1	...	...	170	25	5	...	429	73

TABLE 27.
TUBERCULOSIS IN THE ANIMALS SLAUGHTERED.

EXTENT OF THE TUBERCULAR PROCESS IN PARTIALLY REJECTED CARCASSES.																			
Kind of Animal.	Number Slaughtered.	Of which were Tuberculous.	Totally Rejected	Heads	THORAX.				ABDOMEN.							Bones	Testicles	Udders	Parts of Carcasses in lbs.
					Lungs	Heart and Pericardium	Serous Membranes	Livers	Stomachs	Spleens	Kidneys	Intestines	Uteri	Serous Membranes					
Cows	1227	152	32	75	120	12	46	1	2	—	—	—	—	3	—	3	1768		
Heifers	531	11	4	5	7	—	4	—	—	—	—	—	—	—	—	—	475		
Bulls	1301	38	1	32	37	—	5	—	1	—	—	—	—	1	—	—	530		
Bullocks	6591	52	5	32	47	—	16	—	1	—	—	—	—	1	—	—	392		
Calves	1372	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Pigs	6752	170	25	145	145	—	—	—	—	—	—	—	—	—	—	—	—		
TOTALS	17774	424	68	289	356	12	71	1	4	—	—	—	—	5	—	3	3165		

TABLE 28.

FISH, RABBITS, ETC., EXAMINED, REJECTED AND DESTROYED.

FISH																	
Boxes	Barrels	Tins of Fish	Lbs.	Rabbits	Tins of Meat	Turkeys	Fowl	Tins of Fruit	Tins of Milk	Pears, lbs.	Pears, boxes	Crates of Lettuce	Baskets Plums	Chips of Loganberries	Chips of Red Currants	Onions, doz. bunches	
191	1½	1	64	171	8	1	35	9	2	40	4	53	52	38	19	88	

NUMBER OF VISITS TO INSPECT FOOD.

Fish Shops	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	855
Provision Shops	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1071
Butchers' Shops	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2187
Private Slaughterhouses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	44
Meat Market	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	201
Fish Market	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	294
Railway Station	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	295
																	4947

CARCASSES, ETC., SENT FOR UTILIZATION.

					Tons.	Cwts.	Qrs.
January	..	..	..	..	5	10	2
February	..	..	..	..	5	8	2
March	..	..	..	..	4	13	0
April	..	..	..	..	4	2	3
May	..	..	..	..	4	3	0
June	..	..	..	..	2	5	2
July	..	..	..	..	4	4	3
August	..	..	..	..	3	0	2
September	..	..	..	..	3	19	0
October	..	..	..	..	6	4	2
November	..	..	..	..	5	2	3
December	..	..	..	..	6	6	0
TOTAL	..	..	..	..	55	0	3

ICE CREAM.

In addition to general powers, the ice-cream industry is regulated locally by the Blackburn Corporation Acts of 1901 and 1908. The local enactments provide for :—

- (1) The labelling of stalls, vehicles, etc., from which ice-cream is purveyed. (*Section 61, Blackburn Corporation Act, 1908*).
- (2) The inspection of ice-cream premises. (*Sec. 62 Blackburn Corporation Act, 1908*).
- (3) Seizure and destruction of ice-cream in certain cases. (*Sec. 63, Blackburn Corporation Act, 1908*).
- (4) Regulating the manufacture and sale of ice-cream, etc. (*Sec. 113, Blackburn Corporation Act, 1901*).

The Council decided that existing powers were not adequate, and accordingly sought additional powers in a Bill which was rejected by a poll of rate-payers in December. These powers provided, *inter alia*, for :—

- (1) Registration of ice-cream manufacturers and premises ; and
- (2) Conferred the right on the Corporation to refuse registration of or remove from the register ice-cream manufacturers and premises.

The Association of Municipal Corporations recently considered the following recommendations put forward by the Society of Medical Officers of Health :—

- (1) That premises where ice-cream is manufactured, stored, sold, or exposed for sale, should be subject to registration and inspection.
- (2) That ice-cream should not be sold elsewhere than on registered premises, except in a package, covered and sealed, at the place of manufacture.
- (3) That ice-cream shall only be manufactured or sold by persons registered by the local authority.
- (4) That the local authority should have power to refuse to register, or to remove from the register, premises or persons.
- (5) That chemical and bacteriological standards should be set up for ice-cream.

The Council of the Association of Municipal Corporations was in agreement with these recommendations and resolved to so inform the Ministry of Health.

There are 139 premises in Blackburn at which ice-cream is prepared, to which five hundred and five visits have been paid during the year.

Frequent samples of ice-cream have been bacteriologically examined during the year, and the results have varied very widely. The bacterial counts of many samples were indicative of lack of care in preparation and storage, others again reached a satisfactory standard of purity. As far as our limited powers of control have permitted, efforts have been made to improve the standard of ice-cream purveyed in the town.

Preparers of ice-cream have been encouraged to provide special rooms where practicable for the preparation of the commodity, and several have already made this provision. In some cases an unoccupied room in the house has been taken over for this purpose, and in others semi-permanent structures with an interior capable of easy cleansing have been erected.

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

The Public Analyst is Professor W. H. Roberts, M.Sc., F.I.C. Samples taken under the above Acts are submitted to him for examination at the Public Health Laboratory, Liverpool.

The number of samples examined during 1930 was 868, compared with 815 in 1929. Twenty-three, or 2·60%, of the total proved on examination to be adulterated, or not up to standard.

TABLE 29.

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

	Samples Taken.		Samples Genuine.		Samples Adulterated.	
	Formal.	Inform'l	Formal.	Inform'l	Formal.	Inform'l
Milk	213	94	211	90	2	4
Graded Milk.....	18	205	18	200	—	5
Skimmed Milk.....	2	—	2	—	—	—
Butter	—	20	—	20	—	—
Margarine	—	13	—	13	—	—
Tea	—	30	—	20	—	—
Coffee	—	15	—	15	—	—
Cocoa	—	25	—	25	—	—
Jam	—	15	—	15	—	—
Lard	—	7	—	7	—	—
Bacon	—	2	—	2	—	—
Cheese	—	9	—	9	—	—
Sugar.....	—	3	—	3	—	—
Cream	—	16	—	16	—	—
Condensed Full Cream Milk (Sweetened)	—	10	—	10	—	—
Condensed Full Cream Milk (Unsweetened)	—	17	—	16	—	1
Condensed Machine Skimmed Milk (Sweetened)	—	11	—	11	—	—
Custard Powder	—	10	—	10	—	—
Egg Powder.....	—	9	—	9	—	—
Baking Powder	—	10	—	9	—	1
Rice	—	6	—	6	—	—
Lemon Curd.....	—	5	—	5	—	—
Self-Raising Flour	—	4	—	4	—	—
Tinned Apricots	—	6	—	4	—	2
„ Pears	—	5	—	4	—	1
„ Peaches	—	2	—	2	—	—
„ Pineapple	—	5	—	5	—	—
„ Fruit Salad	—	6	—	4	—	2
„ Damsons	—	2	—	2	—	—
„ Plums	—	1	—	1	—	—
„ Strawberries	—	1	—	1	—	—
„ Crab	—	3	—	3	—	—
„ Lobster	—	2	—	—	—	2
„ Herrings.....	—	1	—	1	—	—
Bloater Paste	—	1	—	1	—	—
Honey	—	1	—	1	—	—
Malt Vinegar	—	1	—	1	—	—
Raspberry Vinegar.....	—	1	—	1	—	—
Pickles	—	1	—	1	—	—
Beef Suet	—	1	—	1	—	—
Jelly	—	1	—	1	—	—
Currant Pudding.....	—	1	—	1	—	—
Olive Oil	—	1	—	1	—	—
Camphorated Oil	—	1	—	1	—	—
Dried Peas	—	1	—	1	—	—
Ice Cream.....	—	30	—	30	—	—
Beer	—	4	—	4	—	—
Tizer	—	1	—	1	—	—
Pearl Barley	—	1	—	1	—	—
Tapioca	—	1	—	1	—	—
Oatmeal	—	2	—	2	—	—
Cough Candy	—	6	—	6	—	—
Ovaltine	—	1	—	1	—	—
Sweets Dusting Powder	—	2	—	—	—	2
Confectionery	—	1	—	1	—	—
Curing Material	—	3	—	3	—	—
Corned Beef	—	2	—	1	—	1
TOTALS	233	635	231	614	2	21

TABLE 30.

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.—ACTION TAKEN IN REGARD TO ADULTERATED SAMPLES.

Articles Purchased.	Number Analysed	Number Genuine	Number Adulterated	Sample of	Formal	Informal	Amount of Adulteration.	Action Taken.
Milk	530	519	11	81	Yes	..	Slightly watered	Other samples taken and found genuine: the milk had been handled by three different vendors before the sample was taken.
				686	Yes	..	28% deficient in Milk Fat	The Vendor Fined 5/- and 8/- Analyst Fee.
				412	..	Yes	10%	Formal samples taken and found genuine.
				436	..	Yes	35%	" " " "
				24	..	Yes	6%	" " " "
				39	..	Yes	90%	This sample was brought to the Health Dept.; on enquiries it was found that only a portion of the milk purchased was brought.
							" " " "	Other samples taken and found genuine.
				387	..	Yes	14%	" " " "
				372	..	Yes	5%	" " " "
				374	..	Yes	26%	" " " "
				484	..	Yes	16%	" " " "
				742	..	Yes	8%	" " " "
							" " " "	" " " "

TABLE 30—(Continued).

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.—ACTION TAKEN IN REGARD TO ADULTERATED SAMPLES.

Articles Purchased.	Number Analysed	Number Genuine	Number Adulterated	Number of Sample	Formal	Informal	Amount of Adulteration.	Action Taken.
Tinned Apricots ..	6	4	2	622	..	Yes	150 parts of tin per million parts of the sample	Sold under a warranty. Warning letter.
Tinned Fruit Salad ..	6	4	2	656	..	Yes	" " " " " "	" " " " "
Tinned Lobster ..	2	..	2	624	..	Yes	220 parts	" " " " "
				653	..	Yes	360 "	" " " " "
				628	..	Yes	155 "	" " " " "
				64	..	Yes	140 "	" " " " "
Sweets Dusting Powder	2	..	2	581	..	Yes	Contained a small amount of Talc. .. .	Warning Letter.
				586	..	Yes	" " " " "	" "
Corned Beef..	2	1	1	1	..	Yes	Contained 150 parts of zinc per million ..	Sold under a warranty. Warning Letter.
Tinned Pears	5	4	1	626	..	Yes	Contained 160 parts of tin per million ..	" " " "
Baking Powder ..	10	9	1	409	..	Yes	40% deficient in carbon dioxide .. .	Instructions as to storing baking powder given. Sold under a warranty.
Con. Full Cream Milk								
Unsweet'd	17	16	1	378	..	Yes	The sample contained only 52.5 grammes of Total Solids, equivalent to only 0.72 of a pint of milk, instead of 0.75, as stated on the label. The sample was, therefore, incorrectly labelled .. .	Sold under a warranty. Warning Letter.

TABLE 31.
THE PUBLIC HEALTH (PRESERVATIVE, &C. IN FOOD) REGULATIONS, 1925 & 1927.

DESCRIPTION OF SAMPLE.	No. of Samples Examined	No. of Samples Free	No. Containing Preservative	Where examination of preservative has been made and none found the fact is indicated by a x. All results are expressed in parts per million.							
				Sulphur Dioxide	Benzoic Oxide	Borates	Salicylic Acid	H'drogen Peroxide	Formaldehyde	Sodium Fluorides	Sodium Nitrite
Milk	530	530	—			x			x		
Cream and Tinned Cream ..	16	16	—			x			x		
Butter	20	20	—			x				x	
Margarine.. .. .	13	13	—			x				x	
Currant Pudding	1	1	—			x					
Jam	17	17	—	x	x		x				
Jelly	1	—	1	75							
Honey	1	1	—	x							
Lemon Cheese and Curd ..	6	6	—	x	x	x	x				
Custard Powder	10	10	—	x							
Raspberry Vinegar.. .. .	1	1	—	x	x	x	x				
Sugar	3	3	—	x							
Barley	1	1	—	x							
Tapioca	1	1	—	x							
Condensed Milk	18	18	—			x					
Ice Cream	30	30	—	x		x					
Bloater Paste	1	1	—	x		x					
Beer	4	3	1	45		x					
Confectionery	7	7	—	x							
Temperance Beverage	1	1	—	x	x		x			x	
Skimmed Milk.. .. .	1	1	—			x			x		x
Bacon Curing Compound ..	2	2	—	x		x			x		x
Bacon	2	2	—	x		x			x		x
Pickling Brine	1	—	1	x	x	x	x		x		400

FERTILISERS AND FEEDING STUFFS ACT, 1926.

Seventeen samples of feeding stuffs were examined by the Analyst during the year. Of these, twelve conformed with the statutory statement, and five failed to do so. The vendors of the latter samples were informed of the difference between the actual composition and the composition as defined in the statutory statement, and the deficiency or excess was pointed out.

The appended Table gives particulars of work done under the Act :—

TABLE 32.

ARTICLE.	Formal	Informal	According to Statutory Statement	Not According to Statutory Statement	ACTION TAKEN.
Ground Oats		1	1		The Vendor informed of the divergences between the analysis and Statutory Statement. Warning letter.
Barley Meal		1	1		
Dari		1	1		
Pea Meal		1	1		
B.O.M. Dairy—					
Nuts		1		1	Do.
Thirids		1	1		
Meat and Bone Meal .		3	1	2	
Bran		1	1		Do.
Cotton Meal					
Decorticated ..		1	1		
Balanced Rations ..	1			1	Do.
Uveco	1		1		
Meat Meal		1		1	
Fylde Ration Meal ..		1	1		Do.
Laying Meal		1	1		
Ground Oats		1	1		

SUCCESSFUL PROSECUTIONS OTHER THAN UNDER THE FOOD
AND DRUGS (ADULTERATION) ACT.

One milk vendor fined 5/- for selling milk out of an unlabelled can.

One milk vendor fined 20/- for selling milk out of an unlabelled can.

One milk vendor fined 40/- for conveying offensive matter when delivering milk.

One milk vendor fined 5/- for selling milk out of an unlabelled can.

One milk vendor fined 10/- for selling graded milk without having a licence.

One milk vendor fined 10/- for selling milk out of an unlabelled can.

One milk vendor fined 4/- for selling milk out of an unlabelled can.

One milk vendor fined 20/- for conveying offensive matter when delivering milk.

One person fined 10/- for storing ice cream in an insanitary building.

PART IV.

Prevalence and Control
of
Infectious Disease.

TABLE 33.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1930.

NOTIFIABLE DISEASE.	Cases notified in whole District.												Total cases notified in each Locality.												Total cases removed to Corporation Hospital	Total Deaths in the Borough				
	At Ages—Years.												St. Stephen's	Trinity	St. Michael's	St. John's	St. Silas'	St. Paul's	St. Peter's	St. Mary's	St. Matthew's	St. Thomas'	Park	St. Luke's			St. Mark's	St. Andrew's		
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65																	65 and upwards	
Small-pox...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria (including Membranous Croup) ...	133	4	9	4	13	7	39	20	13	12	6	4	2	6	11	10	10	10	7	12	19	7	3	10	11	9	125	9	3	—
Erysipelas...	56	—	—	1	1	1	—	1	2	9	3	16	9	10	4	5	4	2	1	—	5	8	7	5	1	7	8	3	—	—
Scarlet Fever ...	342	—	8	20	18	28	156	61	26	23	2	—	—	13	20	40	20	20	21	8	41	25	30	8	20	38	285	—	—	—
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia ...	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Meningitis ...	4	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ophthalmia Neonatorum ...	21	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other forms of Tuberculosis	M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis	M	21	1	1	1	2	5	3	2	5	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia ...	161	8	6	2	2	5	17	10	15	29	27	20	12	9	8	6	3	6	12	6	15	28	14	8	10	17	1	143	—	—
*Diarrhoea ...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS ...	950	41	25	37	44	223	98	90	171	69	59	39	25	45	55	57	66	67	61	44	102	94	75	48	62	85	483	296	—	—

* Notifiable from July 1st to October 31st only.

TABLE 34.

INFECTIOUS DISEASES. AGE INCIDENCE OF CASES NOTIFIED.

	Under One Year		1—2 Years		2—3 Years		3—4 Years		4—5 Years		5—10 Years		10—15 Years		15—20 Years		20—35 Years		35—45 Years		45—65 Years		Over 65 Years		Total		Totals 1927		Totals 1928		Totals 1929		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Scarlet Fever .....	..	..	4	4	6	14	5	13	10	18	67	89	23	38	15	11	8	15	1	..	..	..	..	..	139	203	59	66	37	33	374	387
Diphtheria	2	2	5	4	3	1	5	8	2	5	19	20	9	11	5	8	4	8	1	5	3	3	..	..	58	75	39	60	21	41	82	115
Erysipelas.....	..	..	..	..	..	..	1	..	..	1	..	..	1	1	1	4	5	4	3	9	16	5	5	24	32	29	37	19	26	25	32	
Enteric Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	1	1	1	..	1	..	..	4	3	..	2	2	1	3	3
Puerperal Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..	7	..	10	..	9	..
Puerperal Pyrexia	14	..	2	16	..	19	16	..
Ophthalmia Neonatorum	10	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	11	10	9	9	8	5	8
Pneumonia Ac. Primary..	5	3	3	3	1	1	..	2	3	2	12	5	8	2	12	3	14	15	18	9	16	16	3	5	95	66	154	102	205	153	165	140	
Tuberculosis—Lungs .....	..	..	1	..	..	..	..	..	1	..	1	1	1	3	12	14	21	38	13	8	28	5	5	1	83	70	50	61	77	73	64	61
do. Other Forms.	1	..	1	..	2	1	..	1	2	..	5	4	1	1	2	3	5	6	1	..	..	1	1	..	21	17	27	13	31	32	16	14
Encephalitis Lethargica..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	7	1	16	16	1	4
Diarrhoea	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	..	1	2	2	2	4
TOTALS	21	18	14	11	12	17	11	25	18	26	104	119	42	56	48	42	58	108	39	29	56	42	14	11	437	504	375	378	419	395	737	793	

TABLE 35.

Infectious Diseases.

CASE INCIDENCE PER 1000 OF THE POPULATION.

	St. Stephen's	Trinity	St. Michael's	St. John's	St. Silas	St. Paul's	St. Peter's	St. Mary's	St. Matthew's	St. Thomas	Park	St. Luke's	St. Mark's	St. Andrew's
Scarlet Fever	3.20	1.48	2.59	2.81	4.48	2.07	3.16	1.46	4.44	2.09	3.19	1.06	1.93	3.59
Diphtheria	1.10	1.68	0.67	1.54	1.12	1.03	1.05	2.19	2.06	0.58	0.32	1.33	1.06	0.85
Erysipelas.....	0.36	0.34	0.45	0.70	0.44	0.20	0.15	0.00	0.54	0.67	0.74	0.66	0.09	0.63
Enteric Fever	0.00	0.11	0.00	0.14	0.11	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.18
Puerperal Fever	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.10	0.00	0.09	0.09
Puerperal Pyrexia	0.09	0.11	0.22	0.00	0.11	0.00	0.15	0.36	0.00	0.08	0.31	0.00	0.29	0.09
Ophthalmia Neonatorum	0.00	0.00	0.33	0.28	0.00	0.20	0.15	0.36	0.43	0.08	0.10	0.00	0.29	0.18
Acute Primary Pneumonia ..	1.74	1.02	0.90	0.84	0.33	0.62	1.80	1.09	1.62	2.34	1.49	1.06	0.09	1.60
Tuberculosis—Lungs	1.00	1.14	0.78	0.70	0.56	2.38	1.65	2.19	1.19	1.59	1.06	1.60	1.06	0.56
do. Other Forms ..	0.64	0.00	0.22	0.70	0.11	0.41	0.45	0.36	0.21	0.25	0.21	0.53	0.09	0.18
Encephalitis Lethargica.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.13	0.00	0.00
Diarrhoea	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.10	0.08	0.21	0.00	0.00	0.00

TABLE 36.

SHEWING NUMBER OF CASES OF INFECTIOUS DISEASES NOTIFIED FROM 1911 TO 1930.

DISEASE.	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	5	10	34	...
Diphtheria (including Mem- branous Group)	107	55	76	62	39	52	50	57	30	69	45	52	35	62	67	81	99	124	197	133
Erysipelas	77	87	90	97	69	66	40	52	38	59	47	54	52	45	39	44	66	42	57	56
Scarlet Fever	343	116	268	704	460	153	96	150	136	181	211	231	216	70	304	218	125	121	761	342
Enteric Fever	49	26	31	31	44	14	13	13	3	5	2	5	3	3	2	9	2	1	6	7
Puerperal Fever	9	9	8	10	5	5	3	5	5	12	15	7	12	10	13	11	7	10	9	7
Puerperal Pyrexia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	19	9	16	16
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis	...	1	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	4
Poliomyelitis	...	4	1	...	...	1	...	...	...	1	3	...	1	...	...	...	...	...	2	...
Pulmonary Tuberculosis	...	217	230	212	213	154	131	176	124	88	150	145	176	150	169	132	111	106	125	153
Other forms of Tuberculosis	...	...	104	60	88	49	47	54	47	38	71	70	102	63	71	44	40	36	30	38
Ophthalmia Neonatorum	...	...	...	15	19	15	7	15	18	22	24	22	15	17	25	19	19	17	13	21
*Measles	...	...	...	...	...	1081	1938	1560	103	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	...	...	...	...	...	...	...	...	5	2	2	1	10	32	5	9	8	7	5	2
Dysentery	...	...	...	...	...	...	...	...	3	1	1	...	...	...	...	1	1	1	...	5
Malaria	...	...	...	...	...	...	...	...	61	18	4	2	1	1	1	1	...	...	...	...
Pneumonia	...	...	...	...	...	...	...	...	114	158	176	275	349	358	242	149	256	222	305	161
†Diarrhoea...	...	...	...	...	...	...	...	...	...	...	31	1	2	4	21	12	1	1	6	5
*Chicken-Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	44	257	...
TOTALS	585	515	808	1191	937	1592	2325	2083	689	654	782	865	974	816	959	750	759	751	1823	950

* No longer notifiable. † Notifiable from July 1st to October 31st.

TABLE 37.

NOTIFICATION OF INFECTIOUS DISEASES.

Disease	Incidence Rate per 1000 of Population				Death Rate per 1000 of Population				Housing Conditions																		
									1930			1929			1928			1927			1926						
	Total Deaths	1000 of Population			1926	1927	1928	1929	1930	1-3 rooms	4-5 rooms	5+ rooms	1-3 rooms	4-5 rooms	5+ rooms	1-3 rooms	4-5 rooms	5+ rooms	1-3 rooms	4-5 rooms	5+ rooms	1-3 rooms	4-5 rooms	5+ rooms			
		1930	1929	1928																							
Small Pox	0.00	0.26	0.07	0.07	0.00	0.00	0.00	0.00	28	6	..	9	..	1		
Scarlet Fever	342	2.72	6.07	1.00	1.75	0.00	0.01	0.00	0.008	10	195	137	596	139	6	87	28	6	69	50	14	147	57		
Diphtheria	133	91.06	1.57	0.99	0.79	0.65	0.07	0.14	0.09	5	83	45	146	38	3	98	23	1	60	38	2	51	28		
Enteric Fever	7	20.05	0.04	0.008	0.01	0.07	0.01	0.00	0.008	..	2	5	3	3	..	1	..	..	1	1	..	..	4	5
Puerperal Fever	7	..	0.05	0.07	0.05	0.08	0.00	0.01	0.008	..	*5	2	7	2	..	9	1	..	5	..	..	10	1		
Puerperal Pyrexia	16	..	0.12	0.12	0.07	0.08	0.00	0.007	0.00	..	*7	9	12	4	..	9	..	..	17	..	..	7	4	
Pneumonia .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Primary and Acute Influenzal	161	1143	1.28	2.43	1.77	2.05	1.19	1.14	1.60	22	118	20	7	226	72	715	63	2	195	61	3	106	40				
Erysipelas	56	8	30.44	0.45	0.33	0.53	0.35	0.02	0.00	1	36	19	3	42	12	1	27	14	2	46	18	..	..	..
Ophthalmia Neonatorum	21	4	..	0.16	0.10	0.13	0.15	0.00	0.00	2	*13	6	..	10	3	..	16	1	15	4	..	14	5				
Encephalitis Lethargica	2	..	60.01	0.01	0.05	0.06	0.07	0.04	0.01	..	1	1	..	3	2	..	6	1	..	..	..	..	..	..
Tuberculosis-Pulmonary	83	35	51	0.65	0.51	0.41	0.40	0.89	0.47	2	52	29	2	32	30	6	33	13	3	36	11	6	50	13			
Males	70	12	54	0.55	0.43	0.43	0.49	0.79	0.43	3	47	20	1	44	16	..	41	13	3	48	10	8	47	8			
Females	153	47	105	1.20	0.99	0.84	0.89	0.84	0.90	5	99	49	3	76	145	6	74	26	6	84	21	14	97	21			
Total .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Non-Pulmonary: .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Males	21	..	10	0.16	0.12	0.15	0.21	0.17	0.04	1	10	10	..	10	6	..	14	5	..	21	6	..	19	2			
Females	17	..	8	0.13	0.11	0.13	0.10	0.11	0.06	..	9	8	..	10	4	..	8	9	1	10	..	1	21	1			
Total	38	..	18	0.30	0.23	0.28	0.32	0.14	0.10	1	19	18	..	20	10	..	22	14	1	31	8	1	40	3			
Diarrhoea	5	..	9	0.04	0.04	0.007	0.008	0.07	0.06	1	3	1	..	6	..	..	1	..	..	..	..	..	..	..
TOTAL	941	477	295	7.50	12.48	5.64	6.08	6.01	2.35	2.90	2.26	1.74	1.45	48	581	312	52	1175	437	235	511	172	185	201	34	476	164

1 case of Puerperal Fever from outside the Borough.
 *) 3 " " " Pyrexia
 ") 1 " " " Ophthalmia Neonatorum " " "

TABLE 38.

NOTIFICATION OF INFECTIOUS DISEASES.—ROOM SPACE IN RELATION TO INFECTIOUS DISEASES INCIDENCE.

Disease.	1930						1929						1928						1927						1926															
	Admitted to Hospital.			Remaining at Home.			Admitted to Hospital.			Remaining at Home.			Admitted to Hospital.			Remaining at Home.			Admitted to Hospital.			Remaining at Home.			Admitted to Hospital.			Remaining at Home.												
	Less than one	1—2	More than two	Total	No. of persons per room	No. of persons per room	Less than one	1—2	More than two	Total	No. of persons per room	No. of persons per room	Less than one	1—2	More than two	Total	No. of persons per room	No. of persons per room	Less than one	1—2	More than two	Total	No. of persons per room	No. of persons per room	Less than one	1—2	More than two	Total	No. of persons per room	No. of persons per room										
Scarlet Fever	75	154	56	285	25	32	..	57	18	127	7	60	37	104	3	12	2	17	25	68	7	100	17	8	..	25	32	108	26	16	30	25	..	52						
Diphtheria	16	66	43	125	5	2	1	8	10	94	71	175	2	13	7	22	4	48	59	111	3	9	1	13	27	63	7	97	2	22	39	12	73	1	7	..	8
Enteric Fever	1	2	..	3	3	1	..	4	..	3	1	4	..	2	..	2	..	1	..	1	2	..	3	5	3	8	..	1	..	1	..	1			
TOTAL	92	222	99	413	33	35	1	69	22	384	407	813	20	106	25	151	11	109	96	216	6	21	3	30	53	133	14	200	19	8	..	27	54	152	41	247	31	30	..	61

SCARLET FEVER.

During 1930 342 cases of scarlet fever were notified, an incidence of 2.72 cases per 1,000 living. The majority of the cases were of a mild type, no deaths being associated with this disease. Two hundred and eighty-five cases, or 83.3% of the cases notified, were removed to the Hospital.

As was the case in 1929 the heaviest incidence was noted amongst the 5-15 group, where 217 cases, or 63.4% of the total notified, occurred.

The Dick Test and active immunisation have not been employed by the Health Department.

Scarlet fever anti-toxin is supplied free of charge to practitioners desirous of passively immunising immediate contacts of the disease.

No "return" cases were brought to the notice of the Health Department during the year.

TABLE 39.

SCARLET FEVER.

Year.	Cases Notified in Black- burn.	Attack Rate per 100,000 of popu- lation.	No. of Deaths.	Per- centago of Deaths to cases notified.	All Cases Admitted to Hospital.		
					No. Admitted	No. of Deaths.	Per- centago of Deaths to cases treated.
1904	458	347.8	13	2.84	336	12	3.57
1905	1578	1188.7	76	4.81	1107	52	4.60
1906	849	635.5	33	3.88	625	27	4.30
1907	544	479.0	21	3.86	381	12	3.10
1908	595	439.8	20	3.36	434	18	4.10
1909	1013	744.1	53	5.23	760	39	5.10
1910	795	580.3	27	3.39	538	17	3.10
1911	343	248.9	10	2.91	241	5	2.00
1912	116	87.1	3	2.59	78	2	2.50
1913	268	200.8	1	0.37	199	2	1.01
1914	704	524.1	10	1.40	560	6	1.07
1915	460	341.5	6	1.30	360	5	1.40
1916	153	116.1	4	2.60	101	2	1.90
1917	96	76.0	2	2.08	68	1	1.50
1918	150	120.1	2	1.30	122	2	1.60
1919	136	103.6	2	1.47	105	2	1.90
1920	181	120.9	3	1.60	164	3	2.40
1921	211	163.0	1	0.40	162	1	0.60
1922	231	178.5	2	0.80	186	2	0.80
1923	216	167.4	0	0.00	181	0	0.00
1924	70	54.2	1	1.43	62	1	1.60
1925	304	239.5	3	0.98	274	3	1.10
1926	218	175.2	1	0.46	192	1	0.53
1927	125	100.4	1	0.80	116	1	0.86
1928	121	96.7	0	0.00	104	0	0.00
1929	761	607.3	2	0.26	634	1	0.15
1930	342	272.1	0	0.00	285	0	0.00

DIPHTHERIA.

During the year 133 cases of diphtheria were notified, a figure equivalent to an attack rate of 1.06 per 1,000 of population. There were nine deaths, giving a mortality rate of 6.7 per 100 cases notified, which, though high, is 3.4 less than in 1929.

Fifty-nine, or 44.3%, of the cases occurred in the 5—15 age group.

One hundred and twenty-five cases, or 94.0% of the total notified, were removed to Hospital.

All the deaths were in respect of Corporation Hospital cases. Consideration of Table No. 49 will show that only one of the fatal cases had received anti-toxin before admission to Hospital, and that the average period between onset of disease and administration of anti-toxin was five days. The delay in administering anti-toxin is sometimes due to failure on the part of the parent to summon medical aid. In other cases anti-toxin is sometimes withheld in the absence of a positive swab. This course cannot be too strongly deprecated, in as much as a throat so suspicious as to justify the taking of a swab warrants the administration of anti-toxin, irrespective of bacteriological findings.

TABLE 40
DIPHTHERIA.

Year.	Cases Notified in Black- burn.	Attack Rate per 100,000 of popu- lation.	No. of Deaths	Per- centago of Deaths to cases notified.	All Cases Admitted to Hospital.		
					No. Admitted	No. of Deaths.	Per- centage of Deaths to cases treated.
1904	60	45.5	11	18.3	11	2	41.1
1905	157	118.2	33	21.0	4	0	<i>Nil.</i>
1906	166	124.2	26	15.7	56	5	8.9
1907	150	111.5	17	11.3	63	5	7.9
1908	100	73.9	12	12.0	39	0	<i>Nil.</i>
1909	102	74.9	18	17.6	29	5	17.2
1910	96	70.0	22	22.9	42	9	21.4
1911	107	77.6	28	26.1	54	9	16.6
1912	55	41.3	9	16.4	36	5	13.9
1913	76	56.7	7	9.2	55	7	12.7
1914	62	46.1	7	11.3	37	2	5.4
1915	39	28.9	8	20.6	24	3	12.5
1916	52	39.5	9	17.3	32	3	9.3
1917	50	39.5	8	16.0	41	4	9.9
1918	57	45.6	11	19.3	56	4	7.1
1919	30	22.8	3	10.0	24	1	4.1
1920	69	49.3	10	14.5	59	7	13.2
1921	45	34.8	6	13.4	27	3	11.0
1922	52	40.1	7	13.4	38	6	13.0
1923	35	27.1	1	2.8	32	1	3.1
1924	62	48.0	3	4.8	48	2	4.1
1925	67	52.8	8	11.9	58	6	7.7
1926	81	65.0	8	9.9	73	8	9.3
1927	99	79.5	11	11.1	106	12	11.3
1928	124	99.1	14	11.2	111	7	6.3
1929	197	157.2	18	9.1	175	16	9.2
1930	133	106.0	9	6.7	125	12	9.6

The above Table shows (a) That the incidence of Diphtheria is increasing. (b) That the disease is less fatal than 20 years ago. (c) That a much larger number of cases seek hospital treatment.

SUPPLY OF ANTITOXIN TO PRACTITIONERS.

A supply of antitoxin for the use of practitioners is kept at the Health Office. A further quantity is kept at the Police Office, to which practitioners apply when the Health Office is closed.

During the year 798,000 units of anti-toxin have been issued to practitioners in the area.

Practitioners are advised to administer prophylactic doses of anti-toxin to immediate contacts of cases of diphtheria. On request anti-toxin is supplied free for this purpose.

DIPHTHERIA PREVENTION.

The Diphtheria Prevention Clinic, established in 1929, has functioned successfully throughout the year. Three sessions have been held each week, 792 cases have attended, and 110 persons were under treatment at the end of the year. Of 375 persons who completed the full course of treatment and reattended for final test 363, or 97·06%, were negative and received a certificate of immunity. Notwithstanding energetic following up :—

- (a) Fourteen persons failed to avail themselves of treatment after initial positive re-action ;
- (b) Fifty-eight persons ceased to attend after one or two injections of diphtheria prophylactic ;
- (c) Ninety-four failed to attend for test following the full course of injections ;
- (d) Thirty-five persons retested following the full course of injections failed to attend for final reading.

Cases attending the Clinic for test are invited to return two days later for reading. Such as give a positive reaction begin the immunising course forthwith ; those who give a negative reading on the second day return on the fourth, and, if necessary, the sixth day before being written off as “ negative.” It is not infrequent to find that susceptible persons fail to exhibit the positive reaction until the fourth or even sixth day.

Many adults, and almost all exhibiting a positive and pseudo reaction, suffered varying degree of local and general malaise following injection of the prophylactic. As it was considered possible that this disturbance might be

attributable in part to protein reaction, all persons over the age of fifteen years and those who gave a combined reading, received three minims of adrenalin hydrochloride solution with each dose of prophylactic. Since this practice was adopted none of the cases treated have experienced any undue malaise.

In the early part of the year the movement experienced a set-back in one part of the town, as a child developed diphtheria three weeks after the final injection of prophylactic. Since the inception of the Clinic all attending have been warned that full immunity is not acquired until at least three months after completion of the course. Notwithstanding this, energetic propaganda was required to overcome unfair prejudice thus occasioned.

In the early part of the year the Health Department was consulted with reference to two cases of diphtheria notified from a residential institution, with accommodation for 60 children and 45 adults. The following procedure was adopted :—

- (1) The two cases were removed to hospital ;
- (2) All possible contacts were swabbed with a view to ascertaining the presence of carriers. All results were negative as regards B. Diphtheria.
- (3) To prevent the occurrence of secondary cases all possible contacts received prophylactic injections of diphtheria anti-toxin. No further cases occurred.
- (4) Six weeks later all in the home above the age of seven years were Schick-tested and positive reactors immunised. All below the age of seven years were immunised without preliminary test.

The Authorities of the institution now furnish the Health Department with particulars of new-comers to the Home who are actively immunised as soon as possible after admission.

The Education Committee have recently authorised the Medical Officer of Health to apply the method to children in the Cottage Homes under their jurisdiction.

The appended Table gives an analysis of cases which have attended the Clinic during the year.

TABLE 41.
ANALYSIS OF CASES ATTENDING DIPHTHERIA IMMUNISATION CLINIC DURING YEAR 1930.

AGE GROUP		No. submitted to Primary Schick Test.		No. Injected with T.A.M. and completed full course of Treatment.		No. failed to avail themselves of treatment after Test which proved Positive	No. failed to complete course of Treatment.		TESTED AFTER FULL COURSE OF TREATMENT.					Failed to Attend for Re-Test.	Re-Tested but failed to attend for Final Exam.	Under Treatment end of 1930.
				After Test which proved Positive	With-out Test		After one In-jection	After Two In-jections	No. Tested	Found Negative and given Certificate of Immunity	FOUND POSITIVE					
		Positive	Nega-tive								Given further course of Treatment	Refused further course of Treatment				
Under 5 Years	M.	..	1	..	96	1	3	3	61	56	..	..	20	5	15
	F.	1	..	1	121	..	2	6	78	69	1	..	25	8	19	
5 Years to 10 Years	M.	7	15	6	98	2	1	4	71	67	1	2	15	1	20	
	F.	15	14	14	116	4	3	6	97	87	3	..	11	7	28	
10 Years to 15 Years	M.	7	10	7	40	..	1	4	32	26	1	2	8	3	8	
	F.	13	11	13	42	1	1	..	35	33	..	..	6	2	14
15 Years and Over	M.	11	15	4	14	2	9	2	9	4	1	..	6	4	5	
	F.	23	29	9	21	4	10	3	27	21	..	1	3	5	1	
TOTALS ..		77	95	54	548	14	30	28	410	363	7	5	94	35	110	

ENTERIC FEVER.

Of seven cases of enteric fever notified in the Borough one terminated fatally. The fatal case was that of an adult admitted to Hospital suffering from a mild attack of diphtheria. He developed signs and symptoms of enteric fever the day after admission, and died five days later.

As far as could be ascertained no connection existed between the notified cases, nor was any common factor discovered.

A Blackburn patient in the County Mental Hospital, Lancaster, died from enteric fever in that Institution, and this death is included as a Blackburn case.

PUBLIC HEALTH (INFECTIOUS DISEASES) REGULATIONS, 1927.

One hundred and sixty-one cases of acute primary and acute influenzal pneumonia were notified in 1930, compared with 305 in 1929. Fourteen of these cases terminated fatally, which represents a case mortality of 8·7%, compared with 10·5% in 1929.

No notifications were received in respect of Malaria.

MEASLES.

This disease is not notifiable under the Infectious Diseases (Notification) Act.

One thousand nine hundred and seventy-six cases were brought to the notice of the Public Health Department by parents and teachers. The cases notified in previous years were : 242 in 1929, 67 in 1928, 1,272 in 1927, 619 in 1926, 919 in 1925, 927 in 1924, 427 in 1923, and 1,688 in 1922.

Twenty-three deaths from measles occurred during the year, equivalent to a death-rate of 0·18 per 1,000 living.

WHOOPING COUGH.

This disease is not notifiable. Such cases as were brought to the notice of the Health Department have been ascertained through the agency of teachers, school attendance officers, and the Maternity and Child Welfare Centres. The number of cases (221) was higher than in 1929, when 102 cases were notified ; five deaths occurred from this cause, a case mortality rate of 2·26%, compared with 7·8% in 1929.

DIARRHŒA.

This disease is notifiable in Blackburn between July 1st and October 31st of each year, notification being required in respect of children under two years of age. Only five cases were notified during the year.

Diarrhœa was certified as the cause of nine deaths.

Six of the deaths were in respect of infants under one year of age, and the remainder in the 1—2 age group.

The death rate per 1,000 births for the age group under one year was 5·6; the corresponding figure in 1929 was 3·21, and in 1928 2·31.

DYSENTERY.

During the year five cases of Sonne Dysentery occurred and were removed to the Corporation Hospital. All the cases recovered. The source of infection was not ascertained.

CHICKEN-POX.

During 1930 564 cases were notified by parents, school teachers, etc., compared with 706 cases notified in 1929.

ANTHRAX.

No cases of human anthrax occurred in Blackburn during the year.

ENCEPHALITIS LETHARGICA.

During 1930 two cases were notified as encephalitis lethargica. Six cases were certified as having died from encephalitis lethargica during the year.

Three out-of-the Borough cases died of encephalitis lethargica in local Hospitals.

Since 1919, 87 cases of encephalitis lethargica have been notified. Of this number 53 have died, giving a case mortality rate of 60·9. Investigation was carried out with a view to ascertaining the condition of the remaining 34 cases. Of these 22, or 25·2% of the total number of cases notified, were found to be alive. Further analysis of the 22 cases living revealed the fact

that only 13 could be said to have made a complete recovery—the remaining nine suffering from one or more of the many serious and incapacitating sequelæ of this dreaded disease. Of 12 cases no trace could be found.

Total Cases Notified	..	..	..	..	..	87
Total No. of Deaths	..	..	..	..	..	53
Case Mortality Rate	..	..	..	..	..	60·9
No. of Cases lost trace of	..	..	..	..	..	12
Total No. of Cases alive at end of 1930	..	..	..	..	..	22
No. of Cases showing complete recovery	..	..	..	..	..	13
No. of Cases living, but suffering from sequelæ	..	..	..	..	..	9

A further series of 17 cases have been admitted to Queen's Park Hospital, all suffering from one or other of the various sequelæ of encephalitis lethargica, but who have not been notified in acute stage.

I am indebted to Dr. G. A. Fleming, the Senior Resident Medical Officer of Queen's Park Hospital, for the particulars contained in the following Table, which gives an analysis of this group of cases :—

TABLE 42.

POST ENCEPHALITIC CASES NOT NOTIFIED DURING ACUTE STAGE.

SEX	AGE	Duration of Illness	Weakness or Paralysis of the Muscles	EYE DEFECTS			HEADACHE			Any Defect of Speech such as Slurring	Any Increased Flow of Saliva	Parkinsonism	Loss of Weight or Muscular Wasting	Mental Impairment	Any Alteration in Habits	
				Squint	Double Vision	Drooping of Eye Lids	Frontal	Occipital	Temporal							
..	1	7 Years	1	1	1	1	1) Unable to Trace. O.B., Oswaldtwistle.
..	1	10 Years	1	..	..	..	1	..	..	1	1	1	..	..	..
..	1	8 Years	..	..	..	..	1	..	..	..	..	..	..	..	..
..	1	8 Years	..	..	..	..	..	..	..	1	1	1	..	..	..
..	1	7 Years	1	..	1	..	..	..	..	1	1	1	1	..	1
..	1	7 Years	..	..	..	..	1	..	..	1	..	1	..	1	..
1	..	7 Years	1	..	1	..	..	..	..	1	1	1	1	..	..
1	..	7 Years	1	..	1	..	..	..	..	1	1	1	..	..	..
..	1	7 Years	..	..	..	..	..	..	..	1	1	1	..	..	..
1	..	7 Years	..	..	..	..	..	..	..	1	1	1	..	..	..
1	..	8 Years	..	..	..	..	..	..	..	1	1	1	..	..	..
1	..	6 Years	1	..	..	..	1	..	..	1	1	1	..	1	..
1	..	6 Years	1	..	..	1	..	1	..	1	1	1	1	1	1
1	..	9 Years	1	..	..	..	..	..	..	1	1	1	..	1	1
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	1	7 Years	..	..	..	..	1	..	..	1	1	1	1	1	..

BRUCELLA ABORTUS INFECTION.

One case of this disease was brought to the notice of the Department. The patient was a male, aged 22 years, resident in the Borough, but employed at an outlying dairy-farm at which there had been two cases of cattle abortion a short time before the patient sickened.

The patient, who made an uninterrupted recovery six weeks after onset, sickened with symptoms of lassitude, headache, and pain in the splenic region. When examined by his private practitioner the temperature was 103° F., and slight splenic tenderness was elicited.

In view of the man's occupation and the indefinite symptomatology, a specimen of blood was examined and found to agglutinate *B. Abortus* (Bang) in a titre of 1 in 2,560.

Specimens of urine and blood were examined for the causal organism with negative result.

PSITTACOSIS.

Two cases of psittacosis occurred in February and were removed to the Corporation Hospital. One case made an uneventful recovery and the other terminated fatally. Post-mortem specimens from the latter case were submitted to the London Hospital for examination by Dr. Bedson, who reproduced the disease in budgerigars by inoculation with filtrates of suspensions made from specimens of spleen, liver and lung. Passage of budgerigars was realised from organ suspension of birds primarily inoculated.

The cases were infected by a parrot purchased fourteen days before the onset of the disease. On delivery the bird was ill, and died two days later. Unfortunately it was immediately cremated by the owners, and was in consequence not available for pathological investigation.

The symptoms primarily presented by both patients were suggestive of an atypical enteric infection, but as the disease progressed pulmonary signs and symptoms became marked and abdominal symptoms abated.

The temperature course of both cases was not of the step-ladder variety, nor was morning remission marked. The pulse rate was never raised proportionately to the high temperature attained. The comparative slowness of pulse-rates did not favour a diagnosis of influenza, pneumonia, or bronchial-pneumonia. In the two latter conditions dyspnoea and abundant expectoration are usually very evident; these features were absent in the cases under review.

Infection by organisms of the enteric group was excluded clinically by the suddenness of onset, temperature course, negative abdominal signs and absence of rose spots. In addition, bacteriological and serological findings did not favour a diagnosis of enteric.

TABLE 43.
VACCINATION RETURNS, 1930.

Month	Births	Successfully Vaccinated	Exempted	Died Unvaccinated	Vaccination Postponed	Removed not traced	Removed traced	Unaccounted for	Insusceptible
January ..	146	57	69	11	2	1	—	4	2
February .	134	55	72	4	—	—	—	3	—
March ..	177	55	98	18	—	—	1	4	1
April ..	134	47	72	6	—	3	1	4	1
May ..	145	40	86	11	1	1	1	5	—
June ..	114	37	67	5	1	—	1	3	—
July ..	163	53	92	6	3	—	1	8	—
August ..	143	46	71	13	2	1	—	10	—
September ..	125	23	66	11	1	2	—	22	—
October ..	142	23	77	10	3	1	2	26	—
November ..	140	12	61	4	2	—	—	61	—
December ..	120	1	41	8	—	—	—	70	—
TOTALS ..	1683	449	872	107	15	9	7	220	4

From the above Table it will be noted that of 1,683 children born during the year only 449, or 26·6%, were successfully vaccinated, and exemptions were successfully claimed in respect of 872 children, or 51·8% of those born.

SMALL-POX.

No cases of Small-Pox were notified during the year.

PUBLIC HEALTH (SMALLPOX PREVENTION) REGULATIONS.

No action has been necessary under the above Regulations.

CORPORATION HOSPITAL.

There are 120 beds at the Corporation Hospital, allotted as follows :—

Scarlet Fever	...	...	...	...	30 beds
Diphtheria	...	...	...	...	16 beds
Tuberculosis	...	...	...	...	64 beds
Other Infectious Diseases	...	...	...	...	10 beds

Ward V, previously used as a Residential Open-Air School, now accommodates 32 cases of Tuberculosis. In time of undue prevalence of infectious disease the ward could be emptied and prepared for the reception of infectious cases within twenty-four or thirty-six hours.

The extension to Ward III is nearing completion and will provide four additional cubicles. This addition will enable a wider range of cases to be treated than is at present possible, and it is anticipated that part of this accommodation will be available for cases of complicated measles.

The extension will free the two-bed annexe to Ward II (at present used as an enteric, or miscellaneous ward) for use as a " steam " and tracheotomy ward.

During the year 600 cases were admitted to the Hospital, of which 537 were discharged. The case mortality rate amongst admissions was 7·5%.

Acerington Borough, Rishton U.D.C., Oswaldtwistle U.D.C., and Blackburn R.D.C. have an arrangement with the Blackburn Corporation whereby cases of infectious disease occurring within their districts may be received into the Corporation Hospital, if accommodation be available.

All cases admitted to Hospital are now placed in barrier isolation until seen by the Resident Medical Officer, and cases admitted which may have been in contact with a second infectious disease are nursed in barrier isolation until the incubation period has elapsed. The latter procedure, which has been in force since July (when scarlet fever, measles and chicken-pox were simultaneously prevalent in the Borough), undoubtedly reduced the incidence of " cross-infection " and thus helped to shorten the average number of patient days.

The majority of scarlet fever cases are hospitalised, except in epidemic periods, when strict selection of cases is exercised. Whether or no the present type of scarlet fever calls for hospital provision is very doubtful, inasmuch as it is a comparatively non-virulent disease, with little associated mortality. Local opinion, however, demands hospital beds, in consequence of which the Department experiences difficulty not in securing hospitalisation of suitable cases, but rather in excluding cases of which domestic environment is such that efficient isolation and attention are available in the home.

There is little doubt that some, at any rate, of the beds set apart for scarlet fever could be more advantageously utilised by the reception of selected cases of measles, whooping-cough and acute-rheumatism.

TABLE 44.
Corporation Hospital.

	Patients remaining in Hospital on January 1st, 1930.			Patients admitted and Discharged in 1930.			Patients remaining in Hospital on December 31st, 1930			Analysis of all cases admitted in 1930 whether discharged or not during the year.					Average number of beds occupied during 1930	Cases removed expressed as a percentage of total notified
	Total cover'd	Re- cover'd	Died	Total	Re- covered	Died	Total	Re- covered	Died	Total	Re- covered	Died	Case Mor- tality %	Av. No of days in Hosp'l		
Scarlet Fever ..	91	91	—	302	301	1	5	5	—	307	306	1	0.32	30.7	25.8	83.3
Diphtheria ..	22	22	—	133	120	13	8	8	—	141	128	13	9.22	36.3	14.0	94.0
Enteric Fever ..	—	—	—	3	3	—	—	—	—	3	3	—	0.00	40.0	0.3	42.8
Measles ..	1	1	—	2	2	—	1	1	—	3	3	—	0.00	18.6	0.07	0.0
Erysipelas..	—	—	—	10	9	1	2	1	1	12	10	2	16.66	23.5	0.6	14.3
Tuberculosis ..	32	29	2	57	36	21	47	7	4	104	43	25	24.27	99.3	30.0	0.0
Chicken Pox ..	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.0	0.0	0.0
Other Diseases..	—	—	—	26	22	4	—	—	—	26	22	4	15.38	18.6	1.3	0.0
Puerperal Fever ..	—	—	—	4	4	—	—	—	—	4	4	—	0.00	40.2	0.4	57.1
Puerperal Pyrexia ..	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.0	0.0	0.0
TOTALS ..	146	143	2	537	497	40	63	22	5	600	519	45	7.5	43.4	71.4	

SCARLET FEVER.

Three hundred and seven cases of scarlet fever were admitted to the Hospital during the year, of which one terminated fatally. This patient resided outside the Borough. This is equivalent to a case mortality of 0·32%.

The average number of hospital days per case of scarlet-fever was 30·7. If cases be excluded which were admitted to hospital whilst incubating measles the average number of hospital days per case is 28·43.

Anti-toxin is administered to all cases of scarlet fever admitted, and cases are no longer detained in hospital until desquamation ceases, provided always that no discharges or septic sores are present. The return of a "peeling" case to its home has sometimes occasioned outrage of parental opinion. No secondary cases have occurred during the year, and explanation of the non-infectivity of desquamation is gradually wearing down public opinion to the contrary, and consequently shortening the period of stay in hospital of uncomplicated cases of scarlet fever.

The following Table gives the ages and sexes of the patients admitted :—

TABLE 45.

<i>Ages.</i>	<i>Males.</i>	<i>Females.</i>	<i>Totals.</i>	<i>Deaths.</i>
0—1 years ..	—	1	1	—
1—2 „ ..	3	3	6	—
2—3 „ ..	8	10	18	—
3—4 „ ..	8	12	20	—
4—5 „ ..	7	14	21	—
5—10 „ ..	58	81	139	1
10—15 „ ..	22	30	52	—
15—25 „ ..	20	19	39	—
25—35 „ ..	4	5	9	—
35—45 „ ..	1	1	2	—
45 and over ..	—	—	—	—
Total, 1930 ..	131	176	307	1
Total, 1929 ..	313	344	757	2
Total, 1928 ..	65	51	116	—
Total, 1927 ..	54	62	116	1
Total, 1926 ..	80	112	192	2

The following Table shows the percentage of Scarlet Fever removals in Wards, 1930 :—

TABLE 46.

<i>Ward.</i>						1929 <i>Percentage</i>	1930 <i>Percentage.</i>
St. Stephen's	..	..	..	..	..	74·0	77·1
Trinity	..	..	..	..	..	85·5	84·6
St. Michael's	..	..	..	..	..	66·6	95·6
St. John's	..	..	..	..	..	97·7	65·0
St. Silas's	..	..	..	..	..	84·6	80·0
St. Paul's	..	..	..	..	..	78·5	70·0
St. Peter's	..	..	..	..	..	100·0	100·0
St. Mary's	..	..	..	..	..	88·6	100·0
St. Matthew's	..	..	..	..	..	86·7	95·1
St. Thomas's	..	..	..	..	..	93·2	76·0
Park	..	..	..	..	..	67·3	86·6
St. Luke's	..	..	..	..	..	76·2	87·5
St. Mark's	..	..	..	..	..	81·4	85·0
St. Andrew's	..	..	..	..	..	83·3	76·3
TOTAL	..	..	..	..	..	83·3	82·3

Monthly Admissions of Scarlet Fever Cases to the Corporation Hospital during 1930 :—

TABLE 47.

1929.

1930.

<i>Month.</i>	<i>Cases Notified.</i>	<i>Cases Removed.</i>	<i>Percentage of Removals.</i>	<i>Cases Notified.</i>	<i>Cases Removed.</i>	<i>Percentage of Removals.</i>
January..	22	19	86·3	73	56	76·7
February	24	19	79·1	39	34	87·1
March ..	18	15	83·3	43	38	88·3
April ..	25	18	72·0	24	21	87·5
May ..	27	24	88·8	24	22	91·6
June ..	22	22	100·0	54	45	83·3
July ..	64	51	79·6	22	19	86·3
August ..	54	50	92·6	12	7	58·3
September	106	94	88·6	11	8	72·7
October ..	172	137	79·6	10	10	100·0
November ..	103	88	85·4	7	5	71·4
December ..	124	97	78·2	23	20	86·9
TOTAL ..	761	634	83·3	342	285	83·3

DIPHTHERIA.

One hundred and forty-one cases, of which 16 were from outside the Borough, were admitted to Hospital during 1930.

Eleven of these cases proved not to be Diphtheria. The negative cases were:—Five Carrier cases, two Broncho-Pneumonia, one Enteric Fever, one Bronchitis, one Measles and Pneumonia, and one Tetany. Three deaths occurred amongst these cases.

The following is an analysis of the cases admitted as diphtheria:—

TABLE 48.

ANALYSIS OF CASES ADMITTED AS DIPHTHERIA TO CORPORATION HOSPITAL, 1930.

Day of Disease on Admission to Hospital	AGE GROUPS (YEARS).					COMPLICATIONS.									TOTAL CASES.			
	0-5	5-10	10-15	15-20	20+	Adentitis	Albumen	Enteritis	Nasal Phonation	Cardiac Irregularity	Otorrhoea	Foot Drop	Rhinorrhoea	Serum Rash	Tracheotomy	Died	Complicated	Un- Complicated
1	2	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	4
2	11	10	4	4	5	2	1	..	1	2	..	1	..	8	..	3	15	19
3	3	5	3	2	5	2	2	..	..	..	..	..	..	4	1	2	9	9
4	5	10	5	2	3	2	1	..	..	..	..	..	1	7	..	1	11	14
5	8	8	1	2	4	2	..	..	2	1	1	..	..	5	2	3	13	10
6	1	4	3	2	2	1	..	1	2	2	..	..	..	1	1	1	8	4
7+	8	5	..	1	5	3	1	..	1	1	1	..	..	8	3	3	18	1
	38	45	16	13	24	12	5	1	6	6	2	1	1	34	7	13	75	61

The Carrier Cases are not included in the above Table.

Average Stay in Hospital (days)—36.3.

The appended Table gives particulars of the fatal cases of diphtheria. It will be noted in this Table that :—

- (1) In only one case was medical advice sought on the first day of the disease ;
- (2) No case received anti-toxin earlier than the second day of disease ; and
- (3) The average period (in days) between onset and administration of anti-toxin was five.

TABLE 49.

Sex.	Age (in years)	DAY OF DISEASE.			
		Medical Advice Sought.	Admitted to Hospital.	Antitoxin Given.	Death
Female	5	4th	6th	6th	7th
Female	1 $\frac{1}{12}$	2nd	2nd	2nd	3rd
Female	3	4th	7th	7th	24th
Female	$\frac{10}{12}$	1st	5th	5th	7th
Female	1	2nd	3rd	2nd	4th
*Male	5	5th	5th	5th	5th
Female	3 $\frac{6}{12}$	5th	5th	5th	11th
Female	6	2nd	2nd	2nd	11th
Male	8	2nd	5th	5th	13th
Female	42	3rd	11th	11th	15th

* Out of the Borough case, which is not included in Table 33.

During the year 19 cases of laryngeal diphtheria were admitted to the Corporation Hospital. Tracheotomy was necessary in seven cases, of which six died ; two of these cases died immediately on completion of the operation, and four within 12—24 hours of operation. That the death-rate amongst tracheotomy cases is high occasions little surprise, as practically all were admitted to Hospital in an almost moribund state, little able to withstand operative shock.

The appended Table gives a classification of laryngeal cases admitted :—

TABLE 50.

1930

Day of Disease on Admission to Hospital.	AGE GROUPS (YEARS).								TRACHEOTOMY.		REMARKS.	
									Non- TRACHEOTOMY.			
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7+	Recov'd	Died		
1	1	..	..	..	1	..	
2	..	2	..	..	..	1	..	..	1	2	..	
3	..	1	..	..	..	1	..	..	1	1	..	
4	..	2	..	1	..	..	..	..	..	3	..	
5	1	..	..	1	..	1	..	1	2	2	..	
6	1	..	..	1	..	..
7*	..	1	1	1*	1	1	..	..	1	3	..	*Died 17 days after operation.

TABLE 51.

INCIDENCE OF DIPHTHERIA CASES ADMITTED TO HOSPITAL.

<i>Ages.</i>	<i>Males.</i>	<i>Females.</i>	<i>Totals.</i>	<i>Deaths.</i>
Under 1 year.. ..	2	2	4	2
1—2 years	6	5	11	2
2—3 years	3	—	3	—
3—4 years.. ..	5	10	15	2
4—5 years.. ..	3	5	8	—
5—10 years.. ..	21	23	44	5
10—15 years.. ..	7	10	17	—
15—25 years.. ..	7	13	20	—
25—35 years.. ..	2	7	9	—
35 years and over ..	4	6	10	2
TOTALS, 1930	60	81	141	13
TOTALS, 1929	76	111	187	17
TOTALS, 1928	54	74	128	13
TOTALS, 1927	55	60	115	14

The following Table shows the percentage of Diphtheria removals in Wards, 1930 :—

TABLE 52.

<i>Ward.</i>						1929 <i>Percentage.</i>	1930 <i>Percentage.</i>
St. Stephen's .. ..	..	..	..	..	..	70·0	91·6
Trinity .. ..	..	..	..	..	..	94·1	83·3
St. Michael's.. ..	..	..	..	..	..	90·9	83·3
St. John's .. ..	..	..	..	..	..	100·0	100·0
St. Silas's .. ..	..	..	..	..	..	66·6	90·0
St. Paul's .. ..	..	..	..	..	..	100·0	90·0
St. Peter's .. ..	..	..	..	..	..	100·0	100·0
St. Mary's .. ..	..	..	..	..	..	100·0	75·0
St. Matthew's .. ..	..	..	..	..	..	95·2	100·0
St. Thomas's .. ..	..	..	..	..	..	69·2	100·0
Park .. ..	..	..	..	..	..	86·9	100·0
St. Luke's .. ..	..	..	..	..	..	100·0	100·0
St. Mark's .. ..	..	..	..	..	..	88·8	100·0
St. Andrew's.. ..	..	..	..	..	..	94·1	100·0
TOTAL .. ..	..	..	..	..	..	88·8	94·0

TABLE 53.

The monthly incidence of Diphtheria in Blackburn was :—

<i>Month.</i>	1929.			1930.		
	<i>Cases Notified.</i>	<i>Cases Removed.</i>	<i>Percentage of Removals.</i>	<i>Cases Notified.</i>	<i>Cases Removed.</i>	<i>Percentage of Removals.</i>
January.. .	25	23	92·0	20	16	80·0
February .	27	24	88·8	21	20	95·2
March .. .	16	12	75·0	16	15	93·7
April .. .	14	14	100·0	12	12	100·0
May .. .	7	7	100·0	7	7	100·0
June .. .	17	15	88·2	12	12	100·0
July .. .	14	10	71·5	2	2	100·0
August .. .	18	16	88·8	6	5	83·3
September .	7	7	100·0	8	8	100·0
October .. .	17	14	82·3	5	5	100·0
November .	11	9	81·8	5	5	100·0
December .	24	24	100·0	19	18	94·7
TOTAL .	197	175	88·8	133	125	94·0

TABLE 54.

ENTERIC FEVER.

<i>Age Period.</i>	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>	<i>Deaths.</i>
Under 10 years .. .	—	—	—	—
10—15 years.. ..	—	—	—	—
15—25 years.. ..	1	1	2	—
25—35 years.. ..	—	—	—	—
35—45 years.. ..	—	—	—	—
45 and upwards .. .	—	1	1	—
TOTAL.. ..	1	2	3	—

OTHER DISEASES.

TABLE 55.

AGE PERIODS.

<i>Disease.</i>	0—1		1—2		2—5		5—15		15—25		25—35		35—45		45 & up		Total	Deaths
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Cerebro-Spinal																		
Meningitis	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Psittacosis	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	2	1
Puerperal Fever ..	—	—	—	—	—	—	—	—	2	—	2	—	—	—	—	—	4	—
Puerperal Pyrexia ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	1	1	—	1	2	3	4	12	2	2
Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—
Ophthalmia																		
Neonatorum ..	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—
Measles	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	—	3	—
Food Poisoning ..	—	—	—	—	—	1	1	1	—	—	—	—	1	—	—	—	4	—
Dysentery	—	—	—	—	—	—	—	—	—	—	4	—	1	—	—	—	5	—
T.B. Meningitis ..	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	—	3	2
No Disease	—	2	—	—	—	—	—	—	—	—	2	—	—	—	—	—	4	—
Mumps	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
Other Diseases ..	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
	1	6	—	—	—	3	3	1	—	7	1	8	3	5	3	4	45	6

TABLE 56.

OUT OF BOROUGH CASES.

<i>Disease.</i>	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>	<i>Deaths.</i>
Scarlet Fever.. ..	10	12	22	1
Diphtheria	4	12	16	1
Enteric Fever	—	—	—	—
Erysipelas	1	3	4	—
TOTAL	15	27	42	2

TABLE 57.

ADMISSIONS FROM THE BLACKBURN ROYAL INFIRMARY.

<i>Disease.</i>	<i>Male.</i>	<i>Female</i>	<i>Total</i>	<i>Deaths</i>
Scarlet Fever	1	1	2	—
Erysipelas	—	2	2	—
TOTAL	1	3	4	—

ADMISSIONS FROM QUEEN'S PARK HOSPITAL.

<i>Disease</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Deaths</i>
Scarlet Fever	3	3	6	—
Diphtheria	2	2	4	—
TOTAL	5	5	10	—

ADMISSIONS FROM THE COTTAGE HOMES.

<i>Disease</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Deaths</i>
Scarlet Fever	—	1	1	—
Measles	1	1	2	—
TOTAL	1	2	3	—

Cases from the Blackburn and East Lancashire Royal Infirmary and Queen's Park Hospital are included in the Out-of-the-Borough Table, if the cases sent were not residents of Blackburn

BACTERIOLOGICAL EXAMINATIONS.

AT THE CORPORATION HOSPITAL.

TABLE 58.

	1930						1929
<i>Examination and Material.</i>	<i>Positive</i>		<i>Negative</i>		<i>Total</i>		<i>Total</i>
For Diphtheria Bacilli :—							
<i>Swabs—</i>							
Private Practitioners	74	...	283	...	357	...	470
Hospital	51	...	299	...	350	...	360
S.M.O.	0	...	0	...	0	...	6
Other	3	...	10	...	13	...	1
For Tubercle Bacilli :—							
<i>Sputum—</i>							
Private Practitioners	40	...	128	...	168	...	220
Hospital	153	...	166	...	319	...	375
Tuberculosis Dispensary ...	147	...	309	...	456	...	196
<i>Pus—</i>							
Hospital	0	...	0	...	0	...	0
For Ringworm :—							
Private Practitioners	0	...	0	...	0	...	3
School Medical Service ...	38	...	51	...	89	...	351
Examination of Urine (<i>Pus, etc.</i>):—							
Private Practitioners	0	...	0	...	0	...	0
Hospital	0	...	4	...	4	...	955*
Tuberculosis Dispensary ...	0	...	0	...	0	...	0
Pleural Fluid	0	...	0	...	0	...	1
Totals	506	...	1250	...	1756	...	2938

Examinations at the Public Health Laboratories, Liverpool and Manchester, are contained in Part VIII of the Report.

* This figure includes routine examination in the Wards, which are not included in the figure for 1930.

DISINFECTION.

Number of Rooms Sprayed :—

Tuberculosis	..	..	..	..	..	..	..	..	208
Fever	..	..	..	..	..	..	..	..	617
Vermin	..	..	..	..	..	..	..	..	97
Institutions	..	..	..	..	..	..	..	..	324
Schools	..	..	..	..	..	..	..	..	1
Others	..	..	..	..	..	..	..	..	126
Articles Disinfected by Steam	..	..	..	..	..	..	..	..	10327
Number of Articles Destroyed by Consent of Owners	..	..	..	..	..	..	..	..	532
Amount of Disinfectant Distributed :—									
Chloros	..	..	..	..	..	(Gallons)	{	Schools..	206
								Houses ..	96½
Persons Cleansed at Disinfection Station..	..	..	..	..	..	..	..	..	37
Cleansings	...	...	..	..	..	..	..	..	133
Library Books Fumigated	..	..	..	..	..	..	..	..	227
Private Books Fumigated	..	..	..	..	..	..	..	..	40
School Books Fumigated	..	..	..	..	..	..	..	..	55

CLEANSING OF PERSONS.

During 1930, 37 persons were dealt with at the Throstle Street Disinfecting and Cleansing Station. The conditions for which baths were given were as under :—

Verminous Conditions	..	..	..	..	..	..	1
Scabies	..	..	..	..	..	..	36

Thirty of the persons dealt with were referred from the School Medical Department. The total number of baths given was 115.

PART V.

Prevalence and Control
of
Tuberculosis.

TUBERCULOSIS.

INCIDENCE AND MORTALITY.

During the year 191 cases of Tuberculosis, 153 Pulmonary and 38 Non-Pulmonary, were notified. In 1929 the notifications numbered 155 ; in 1928, 142 ; in 1927, 151 ; in 1926, 176 ; in 1925, 240 ; in 1924, 150 ; and in 1923 176. The notification of Tuberculosis in the area has been fairly satisfactory, and there have been no cases of wilful neglect or refusal to notify.

The number of deaths in 1930 from all forms of Tuberculosis was 123 ; Pulmonary Tuberculosis caused 105 deaths, and Non-Pulmonary Tuberculosis 18. Eighteen, or 14·47%, of the deaths from Tuberculosis were in respect of cases which had not been notified during life.

RECORDS OF PREVIOUS YEARS.

<i>Deaths from Tuberculosis</i>	1930	1929	1928	1927	1926	1925	1924	1923
Pulmonary	105	114	82	96	106	90	85	93
Non-Pulmonary	18	13	21	14	10	20	26	31

The number of deaths from all forms of Tuberculosis is equivalent to a rate of 0·97 deaths per 1,000 living.

MORTALITY RATE PER 1,000 LIVING COMPARED WITH THAT OF ENGLAND AND WALES.

	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920
Blackburn...	...0·97	1·01	0·82	0·88	0·93	0·86	0·86	0·96	0·81	0·78	0·81
England & Wales...	—	0·96	0·93	0·97	0·96	1·04	1·06	1·03	1·12	1·13	1·13

Perusal of the above Table shows that the death rate from all forms of Tuberculosis in Blackburn compares favourably with the corresponding rate for England and Wales. Since 1919, however, there has been a decline in the England and Wales rate, whereas that of Blackburn has, with the exception of 1929, remained practically stationary since 1920.

Of the cases notified during the year 58 died, 48 of the deaths being from Pulmonary, and ten from Non-Pulmonary disease.

The appended Table gives the age-groups of the cases notified and of the deaths for the year 1930.

TABLE 59.

Age Periods.	New Cases				Deaths.			
	Pulmonary		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Under one year	—	—	1	—	—	—	—	—
1— 5 years	2	—	5	2	—	1	1	1
5—10 „	1	1	5	4	1	—	3	3
10—15 „	1	3	1	1	1	3	—	—
15—20 „	12	14	2	3	2	8	2	2
20—25 „	10	14	3	3	6	10	1	—
25—35 „	11	24	2	3	7	16	—	1
35—45 „	13	8	1	—	14	8	2	—
45—55 „	14	3	—	1	10	3	—	—
55—65 „	11	2	—	—	5	3	1	1
65 and upwards	5	1	1	—	5	2	—	—
Totals	83	70	21	17	51	54	10	8

The number of cases notified during the year and the number of deaths from this cause are practically the same for either sex.

Of cases notified during the year, the attack rate corresponds, in the case of males, to 1·80 per 1,000 males, and of females, to 0·98 per 1,000 females.

THE TUBERCULOSIS SCHEME.

The Council have provided a Tuberculosis Dispensary in Duke Street, where afternoon sessions are held from 2-0 to 5-0 p.m., on Monday, Tuesday, Thursday and Friday. For the convenience of those whose occupation prevents attendance at the afternoon consultations a Clinic is held every Tuesday evening, from 7-0 to 9-0 p.m. The Clinical Tuberculosis Officer, assisted by the Tuberculosis Nurse and Clerk, attends each session.

Close co-ordination obtains between the Tuberculosis Dispensary on the one hand and other branches of the Health Service, School Medical Department, and private practitioners on the other.

During the year practitioners have referred 161 cases for examination at the Dispensary, and the Tuberculosis Officer has held 218 consultations with practitioners.

Following examination at the Dispensary the majority of insured patients are referred to their panel doctors for domiciliary treatment. Each quarter the practitioners are requested to send their patients to the Dispensary, or to furnish the Administrative Tuberculosis Officer with a progress report.

In addition to a clinical examination all cases attending the Dispensary for the first time undergo X-Ray examination and bacteriological investigation of the sputum is also performed. During the year 168 sputum examinations were undertaken for private practitioners, and 456 in respect of patients attending the Dispensary.

The Tuberculosis Nurse visits the homes of all notified cases and reports on home conditions, in addition, she advises all contacts to attend the Dispensary for examination.

During the year the Nurse made 3,442 home visits, 596 of which were in respect of ex-Service men.

Probably the most important duty of the Tuberculosis Nurse is to supervise home isolation of patients under domiciliary treatment. Unfortunately the housing conditions of many of these cases are such as render satisfactory home isolation a matter of grave difficulty.

The appended Table, which relates to persons who were at home during the last quarter of 1930, demonstrates the difficulty experienced in securing isolation of this type of case :—

TABLE 60.

	On First Visit.	After-wards.
No. who occupy a separate bedroom	201	231
No. who occupy a separate parlour alone	19	21
No. who occupied a kitchen alone	7	7
No. who occupied a shelter in yard	1	2
No. who occupied a separate bed in a room occupied by :—		
One other person	44	65
Two other persons	43	41
Three other persons	14	11
Many other persons (Common Lodging House, &c.) ..	29	27
No. who occupied a bed in common with :—		
One other person	81	42
Two other persons	5	—
Three other persons	1	—
Two beds in a room :—		
Two persons in each bed	9	7
Three persons in each bed	2	2
TOTAL	456	456

Where effective home isolation is impossible, or the domestic environment otherwise unsuitable, the Health and Housing Committee give preferential treatment to tubercular applicants for Corporation houses, whose applications are supported by the Medical Officer of Health.

By arrangement with the District Nursing Association, the Corporation provides home nursing for selected cases of patients under domiciliary treatment. During the year members of the District Nursing Staff paid 1,552 visits under this arrangement.

THE TREATMENT OF TUBERCULOSIS.

At the beginning of 1930 there were 447 Pulmonary and 252 Non-Pulmonary cases on the Dispensary Register.

During the year 157 Pulmonary and 42 Non-Pulmonary cases were added to the Register, consequently 604 Pulmonary, and 294 Non-Pulmonary cases

were dealt with during the year. At the end of the year there were 454 Pulmonary, and 212 Non-Pulmonary cases on the Register, 232 names having been removed in the course of the year by reason of cure (0), died of Tuberculosis (106), lost sight of (94), died of non-tubercular disease (4), and removed to other towns (28).

Of cases on the Register on December 31st, 1930, 48 were receiving no form of treatment. The majority of these were following their ordinary occupations.

Blackburn patients are admitted either to the Sanatorium Blocks at the Corporation Hospital, or to Meathop Sanatorium, Grange-over-Sands, where the Corporation reserves ten beds. The more advanced cases are received into the Corporation Hospital, the early cases, or those which have improved under treatment at the Corporation Hospital, are drafted to Meathop.

At the beginning of the year 18 males, 10 females, and four children were in-patients in the Sanatorium block; during the year 62 males, 40 females, and nine children were admitted; on December 31st, 1930, 34 males, 12 females, and one child were still undergoing treatment. In the course of the year 34 males, 22 females, and nine children were discharged. Ten males, 11 females and two children died.

Ward V at the Corporation Hospital, previously used as an Open-Air School, is now used as a Sanatorium Block, and accommodates 32 cases.

The appended Table shows the condition of patients on discharge from the Sanatorium Block :—

				<i>Disease</i>	<i>Much</i>					
				<i>Quiescent</i>	<i>Improved</i>	<i>No Change</i>			<i>Dead</i>	
Males	...	...	...	—	...	30	...	4	...	10
Females	...	...	...	1	...	19	...	2	...	11
Children	...	...	...	—	...	8	...	1	...	2
				—	—	—	—	—	—	—
				1	...	57	...	7	...	23
				—	—	—	—	—	—	—

At the commencement of the year 6 males and 3 females were in-patients at Meathop Sanatorium, and during 1930 12 males and 10 females were admitted. At the end of the year 4 males and 5 females remained at Meathop. The appended Table shows the condition of patients on discharge from Meathop.

				<i>Disease</i>	<i>Much</i>					
				<i>Quiescent</i>	<i>Improved</i>	<i>No Change</i>	<i>Dead</i>			
Males	...	...	...	0	...	11	...	2	...	1
Females	...	...	...	1	...	5	...	2	...	0
				—	...	—	...	—	...	—
				1	...	16	...	4	...	1
				—	...	—	...	—	...	—

NON-PULMONARY TUBERCULOSIS.

During the year 18 deaths were certified to be due to Non-Pulmonary Tuberculosis, compared with 13 in 1929, 21 in 1928, 14 in 1927, 10 in 1926, 24 in 1925, 26 in 1924, and 31 in 1923. The deaths were due to :—

						<i>Male. Female.</i>	
Tuberculous Meningitis	..	..	..	..	..	4	5
Tuberculous Peritonitis	..	..	..	..	..	3	2
Tubercle of Kidney	..	..	..	..	..	0	0
Bone and Joint Tuberculosis	..	..	..	..	..	1	1
T.B. Ischio Rectal Abscess	..	..	..	..	..	1	0
T.B. Adenitis	..	..	..	..	..	1	0

Forty-one cases of Non-Pulmonary Tuberculosis were notified. The diagnoses were :—

						<i>Male. Female.</i>	
Tuberculous Glands of Neck	..	..	..	..	..	1	5
Abdominal Tuberculosis	..	..	..	..	..	4	3
Meningitis	..	..	..	..	..	4	3
Spinal Caries	..	..	..	..	..	3	1
Tuberculous Joint Disease	..	..	..	..	..	4	3
Tuberculous Bone Disease	..	..	..	..	..	2	0
Mediastinal Glands	..	..	..	..	..	1	0
Larynx	..	..	..	..	..	0	0
Tuberculous Kidney	..	..	..	..	..	0	1
Tuberculous Intestine	..	..	..	..	..	2	0
Ischio Rectal Fossa	..	..	..	..	..	1	0
Lupus	..	..	..	..	..	0	2
Ileo-cæcal Region	..	..	..	..	..	0	1

BONE AND JOINT TUBERCULOSIS.

Nineteen cases of Bone or Joint Tuberculosis were examined by Dr. Briggs at the Special Orthopædic Clinic.

DENTAL TREATMENT OF TUBERCULOSIS PATIENTS.

The following Table gives details of Dental work carried out as part of the Tuberculosis Scheme :—

The Dental Surgeons carried out the following work in 1930 :—

Number of Patients	..	..	..	..	..	11
Permanent Teeth extracted	..	..	..	..	..	15
Temporary Teeth extracted	..	..	..	..	..	1
Permanent Teeth Filled	..	..	..	..	..	2
Number of Sessions held	..	..	..	..	..	8

The following treatment was carried out at Meathop Sanatorium by the Dental Surgeon attached to that Institution. The cost of this treatment was borne by the Health Committee, but in some cases a part of the expense was refunded by the patients :—

Number of Patients Treated	..	..	..	..	..	7
Extractions	..	..	..	..	..	31
Dentures	..	..	..	..	..	4
Scalings	..	..	..	..	..	2
Repairs	..	..	..	..	..	2

ULTRA-VIOLET LIGHT TREATMENT.

Particulars of the Ultra-Violet Light Treatment of Tuberculosis patients will be found in Tables 88 to 92.

PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925

It was not necessary to take any action during the year under the above regulations relating to tuberculous employees in the milk trade.

TABLE 61.

Public Health (Tuberculosis) Regulations, 1912.

SUMMARY OF NOTIFICATIONS.

Age Periods.	Notifications on Form A.													Notifications on Form B			Number of Notifications on Form C.	
	Number of Primary Notifications													Number of Primary Notifications.			Poor Law Institutions.	Sanatoria.
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Primary Notifications	Total Notifications on Form A.	Under 5	5 to 10	10 to 15	Total Primary Notifications	Total Notifications on Form B.
Pulmonary Males ..	..	2	1	1	12	10	11	13	14	14	5	83	89	..	..	..	4	64
" Females...	..	..	1	3	14	14	24	8	3	2	1	70	77	..	..	..	2	39
Non-Pulmonary Males	1	5	5	1	2	3	2	1	..	..	1	21	22	..	..	..	12	..
" Females	..	2	4	1	3	3	3	..	1	..	..	17	17	..	..	..	3	..

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1924.

Number of cases of Tuberculosis remaining on the Register of Notifications kept by the Medical Officer of Health of the County Borough on the 31st December, 1930.

TOTAL CASES.	PULMONARY.			NON-PULMONARY.		
	Males	Females	Total.	Males	Females	Total
663	265	187	452	112	99	211

This shows a decrease of 29 in the total number ; which comprises an increase of 13 pulmonary, and a decrease of 42 non-pulmonary.

TABLE 62. (FORM T. 53 OF THE MINISTRY OF HEALTH).

TUBERCULOSIS DISPENSARY—WORK CARRIED OUT DURING THE YEAR 1930

DIAGNOSIS.	PULMONARY.				NON-PULMONARY				TOTAL.			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—New Cases examined during the year (excluding contacts)—												
(a) Definitely tuberculous ..	49	43	2	4	1	7	7	6	50	50	9	10
(b) Doubtfully tuberculous.	—	—	—	—	—	—	—	—	19	18	13	5
(c) Non-tuberculous	—	—	—	—	—	—	—	—	21	31	18	11
B.—Contacts examined during the year—												
(a) Definitely tuberculous ..	—	1	—	—	—	—	—	1	—	1	—	1
(b) Doubtfully tuberculous.	—	—	—	—	—	—	—	—	3	3	4	10
(c) Non-tuberculous	—	—	—	—	—	—	—	—	6	12	24	16
C.—Cases written off the Dispensary Register as—												
(a) Cured	—	—	—	—	—	—	—	—	—	—	—	—
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ..	—	—	—	—	—	—	—	—	44	48	46	39
D.—Number of Persons on Dispensary Register on December 31st—												
(a) Diagnosis completed ..	194	133	33	26	22	28	47	38	216	161	80	64
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	11	12	16	10

1. Number of persons on Dispensary Register on January 1st 607
2. Number of Patients transferred from other areas and of "lost sight of" cases returned 5
3. Number of Patients transferred to other areas and cases "lost sight of" .. 139
4. Died during the year.. .. . 61
5. Number of Observation Cases under A (b) and B (b) above in which period of observation exceeded two months 10
6. Number of Attendances at the Dispensary (including Contacts).. .. . 3456
7. Number of Attendances of Non-Pulmonary Cases at Orthopædic Out-stations for treatment or supervision 42

8	Number of Attendances, at General Hospitals or other Institutions approved for the purpose, of Patients for—	
	(a) "Light" treatment, carried out at the Corporation Hospital	1113
	(b) Other special forms of Treatment	—
9.	Number of Patients to whom Dental Treatment was given, at or in connection with the Dispensary	18
10.	Number of Consultations with Medical Practitioners :—	
	(a) At Homes of Applicants.. .. .	30
	(b) Otherwise	188
11.	Number of other Visits by Tuberculosis Officer to Homes	31
12.	Number of Visits by Nurses or Health Visitors to Homes for Dispensary purposes	3442
13.	Number of :—	
	(a) Specimens of Sputum, &c., examined	456
	(b) X-Ray Examinations made in connection with Dispensary work	785
14.	Number of Insured Persons on Dispensary Register on the 31st December ..	365
15.	Number of Insured Persons under Domiciliary Treatment on 31st December	167
16.	Number of Reports received during the year in respect of Insured Persons :—	
	(a) Form G.P. 17	—
	(b) Form G.P. 36	104
17.	Number of cases sent by Private Practitioners for an opinion	161
18.	Number found to be suffering from Tuberculosis	67

Classification. on admission to the Institution	Condition at time of Discharge.	Duration of Residential Treatment in the Institution.												To't			
		Under 3 months.			3-6 months.			6-12 months			More than 12 months.						
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.				
PULMONARY TUBERCULOSIS.	Class T.B. minus.	Quiescent .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
		Improved .. .. .	...	...	...	...	1	...	...	1	...	1	1	2	...	...	...
		No material improve- ment .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Class T.B. plus. Group 1.	Quiescent .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved	5	1	...	1	1	...	4	3	...	2	1	...	...	...	18
		No material improve- ment .. .. .	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
		Died in Institution ..	1	1	...	2	1	...	...	1	...	...	...	...	...	...	6
	Class T.B. plus. Group 2.	Quiescent .. .. .	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
		Improved	6	3	...	3	3	...	3	2	...	6	1	...	...	...	27
		No material improve- ment	4	3	...	...	...	...	...	...	...	...	...	...	...	...	7
		Died in Institution ..	2	2	...	...	...	...	...	1	...	...	...	...	...	...	5
	Class T.B. plus. Group 3.	Quiescent .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved .. .. .	...	2	...	3	...	...	1	2	...	1	...	...	...	...	9
		No material improve- ment	2	...	...	...	2	...	...	...	...	...	...	...	...	...	4
		Died in Institution ..	4	4	...	1	1	...	1	...	...	...	...	...	...	...	11
NON-PULMONARY TUBERCULOSIS.	Bones and Joints.	Quiescent or Arrested.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved .. .. .	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
		No material improve- ment .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Abdominal	Quiescent or Arrested.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved .. .. .	...	...	...	...	...	1	...	...	...	...	...	...	2	...	3
		No material improve- ment .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Organs.	Quiescent or Arrested.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		No material improve- ment .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ..	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2
	Peripheral Glands.	Quiescent or Arrested.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved .. .. .	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
		No material improve- ment .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Observation for purpose of Diagnosis		Under 1 week			1-2 weeks			2-4 weeks			More than 4 weeks						
	Tuberculous	1	1	...	2	2	...	...	3	...	1	...	...	...	...	10	
	Non-Tuberculous ..	...	...	...	2	...	...	1	...	...	...	2	4	...	...	9	
	Doubtful .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE 64. (FORM T. 54 OF THE MINISTRY OF HEALTH).**RESIDENTIAL INSTITUTIONS.**(A) AVERAGE NUMBER OF BEDS AVAILABLE FOR PATIENTS DURING THE YEAR
1930.

	Observation.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total
		"Sanatorium" Beds	"Hospital" Beds	Disease of Bones and Joints	Other Conditions.	
Adult Males..	5	34	..	..	39
Adult Females	5	15	..	..	20
Children under 15
TOTAL	10	49	..	..	59

(B) RETURN SHOWING THE EXTENT OF RESIDENTIAL TREATMENT DURING
THE YEAR 1930.

			In Institutions on Jan. 1st	Admitt'd during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31st.
Number of Patients	Adults	M.	24	68	44	11	37
		F.	12	41	28	11	14
	Children;	M.	..	1	..	1	..
		F.	4	3	6	1	..
Number of Observation Cases.	Adults	M.	..	8	7	..	1
		F.	1	10	8	..	3
	Children	M.	..	1	..	..	1
		F.	..	4	4	..	..

TABLE 65. (FORM T. 56 OF THE MINISTRY OF HEALTH).

PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1930.					1930.					
				Class T.B. minus	Class T.B. plus.				Class T.B. minus	Class T.B. plus.				
					Group 1	Group 2	Group 3	Total (Class T.B. plus)		Group 1	Group 2	Group 3	Total (Class T.B. plus)	
ALIVE	Discharged as Cured	Adults	M.	17	..	1	..	1	..	..	..	..	..
			F.	15	..	..	..	..	..	..	..	..
		Children	M.	3	..	..	..	..	..	..	..	..	..
			F.	2	..	1	..	1	..	..	..	..	..
	Disease Arrested	Adults	M.	27	1	7	3	11	..	..	..	..	..
			F.	13	1	4	1	6	..	..	..	..	..
		Children	M.	8	..	1	..	1	..	..	..	..	..
			F.	10	..	..	..	..	..	..	..	..	..
	Disease not Arrested	Adults	M.	19	9	28	11	48	11	5	19	11	35	
			F.	7	6	13	10	29	14	4	13	6	23	
		Children	M.	5	..	..	..	..	1	..	..	..	..
			F.	4	..	..	..	..	3	..	..	..	..
	CONDITION NOT ASCERTAINED DURING THE YEAR				76	9	16	10	35
	LOST SIGHT OF OR OTHERWISE REMOVED FROM DISPENSARY REGISTER				481	92	51	23	167	2	1	1
	DEAD	Adults	M.	42	29	67	231	326	4	1	4	1	6	
			F.	41	32	83	175	290	2	1	2	3	6	
Children		M.	15	4	17	21	42	..	..	..	..	..
		F.	16	3	15	17	35	1	..	..	..	..
TOTALS				801	186	304	502	992	38	12	38	21	71	

TABLE 65—Continued

NON-PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1930.					1930.				
				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
ALIVE	Discharged as Cured	Adults.	M.	2	..	..	2	4	..	..	..	..	..
			F.	1	..	..	2	3	..	..	..	..	..
		Children	M.	3	1	3	6	13	..	..	..	..	..
			F.	1	..	1	12	14	..	..	..	..	..
	Disease Arrested	Adults.	M.	1	..	1	..	2	..	..	..	..	..
			F.	2	1	2	..	5	..	..	..	..	..
		Children	M.	1	5	1	4	11	..	..	..	..	..
			F.	..	2	..	4	6	..	..	..	..	..
	Disease not Arrested ..	Adults.	M.	1	1	1	..	3	..	..	..	1	1
			F.	1	..	1	2	4	..	1	1	4	6
		Children.	M.	2	6	1	3	12	1	3	..	2	6
			F.	..	4	1	2	7	..	3	1	3	7
TRANSFERRED TO PULMONARY..				2	..	1	9	12	..	..	..	..	..
CONDITION NOT ASCERTAINED DURING THE YEAR				25	12	11	17	65	..	..	..	..	..
LOST SIGHT OF OR OTHERWISE REMOVED FROM DISPENSARY REGISTER				48	38	42	216	344	..	..	1	..	1
DEAD	Adults.	M.	20	16	9	4	49	..	..	..	..	..
		F.	14	15	9	1	39	..	..	..	..	..
	Children.	M.	10	17	15	3	45	..	..	..	..	..
		F.	8	17	12	2	39	..	..	..	..	..
TOTALS				142	135	111	289	677	1	7	3	10	21

TABLE 67.
ANNUAL RETURN SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS DISCHARGED FROM
MEATHOP SANATORIUM DURING THE YEAR 1930.

	Condition at time of discharge.	PULMONARY TUBERCULOSIS.—Duration of Residential Treatment.									
		Under 3 months			3-6 months.			6-12 months.			Total.
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
CLASS A Cases in which Tubercle Bacilli have never been found	Quiescent	—	—	—	—	—	—	—	—	—	—
	Much improved	—	—	—	—	—	—	—	—	—	—
	No material improvement.	—	—	—	—	—	—	—	—	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—
CLASS B 1 Early Cases in which Tubercle Bacilli have been found	Quiescent	—	—	—	—	—	—	—	—	—	—
	Much improved	1	—	—	1	—	—	—	—	—	—
	No material improvement.	—	—	—	—	—	—	—	—	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—
CLASS B 2 Intermediate Cases in which Tubercle Bacilli have been found	Quiescent	—	—	—	—	—	—	—	—	—	—
	Much improved	2	—	—	—	1	—	1	—	—	—
	No material improvement.	—	—	—	—	—	—	—	—	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—
CLASS B 3 Advanced Cases in which Tubercle Bacilli have been found	Quiescent	—	—	—	—	—	—	—	—	—	—
	Much improved	—	—	—	—	—	—	—	—	—	—
	No material improvement.	2	—	—	—	1	—	1	—	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—
Total		5	—	—	—	2	—	4	5	—	18

TABLE 68.

SHOWING THE EXTENT OF RESIDENTIAL TREATMENT FOR PULMONARY TUBERCULOSIS DURING 1930.

			In Institutions on Jan. 1st.	Admitted during 1930.	Discharged during 1930.	Died in the Institutions.	In Institutions on Dec. 31st, 1930.
Meathop Sanatorium ...	Adults	M.	6	12	13	1	4
		F.	3	10	8	—	5
	Children	M.	—	—	—	—	—
		F.	—	—	—	—	—
Corporation Hospital. ...	Adults	M.	16	60	29	10	37
		F.	10	35	25	11	9
	Children	M.	—	1	—	—	1
		F.	2	4	6	—	—
Residential Open-Air School. ...	Children	M.	—	—	—	—	—
		F.	—	—	—	—	—
TOTAL ...	...		37	122	81	22	56

TABLE 69.

CONDITION AT END OF 1930 OF PATIENTS TREATED AT AND DISCHARGED
FROM THE BLACKBURN CORPORATION HOSPITAL

Year Dis- charged	At full work. No Sym- ptoms 1	At full work, but with difficulty 2	Not able to work full time owing to ill health. 3	Not able to work but able to get about 4	Confined to the house 5	Confined to bed 6	Died (not in the In- stitution at time of first admis- sion). 7	Cannot trace 8	Total. 9
1913	15	—	—	3	1	—	42	30	91
1914	12	—	—	—	1	—	36	19	68
1915	5	—	—	1	—	—	58	9	73
1916	3	1	—	—	—	—	45	7	56
1917	6	—	1	—	—	1	29	1	38
1918	10	—	1	1	—	1	38	6	57
1919	17	1	1	3	1	—	46	4	73
1920	20	—	—	2	—	1	46	4	73
1921	17	3	1	4	—	2	45	5	77
1922	25	4	1	6	2	3	53	9	103
1923	27	4	1	9	2	2	64	14	123
1924	13	2	2	8	1	—	63	12	101
1925	7	6	5	9	5	3	51	17	103
1926	7	4	2	5	2	—	26	9	55
1927	12	3	2	2	2	2	13	9	45
1928	1	4	2	8	—	3	22	2	42
1929	—	2	3	9	2	—	15	—	31
1930	2	5	11	18	7	3	13	1	60
Total.	199	33	33	88	26	21	705	158	1269
%	15.6	3.0	2.7	7.2	2.0	1.6	55.5	12.4	—

TABLE 70.

CONDITION AT END OF 1930 OF PATIENTS TREATED AT AND DISCHARGED
FROM MEATHOP SANATORIUM.

Year Dis- charged.	At full work. No Symp- toms. 1	At full work, but with difficulty 2	Not able to work full time owing to ill health 3	Not able to work but able to get about 4	Confined to the house. 5	Confined to bed. 6	Dead 7	Can- not trace 8	Total.
1909 and previous	—	—	—	—	—	—	12	8	20
1910	—	—	—	—	—	—	19	4	23
1911	—	—	—	2	—	—	14	1	17
1912	—	—	—	—	—	—	16	3	19
1913	9	—	—	1	1	—	13	12	36
1914	13	1	—	—	—	—	12	12	38
1915	6	—	—	—	—	—	12	14	32
1916	9	—	1	—	—	—	15	5	30
1917	10	—	—	2	—	—	20	4	36
1918	6	—	1	5	1	—	23	4	40
1919	13	2	—	2	—	1	18	12	48
1920	15	—	1	3	—	—	17	6	42
1921	16	2	1	—	2	1	11	9	42
1922	7	—	—	—	—	—	11	4	22
1923	3	—	3	2	—	2	8	6	24
1924	3	1	—	3	—	—	12	7	26
1925	4	—	1	1	3	—	14	2	25
1926	5	—	—	5	1	1	8	6	26
1927	4	—	1	6	1	1	3	3	19
1928	—	2	3	5	2	1	5	1	19
1929	—	2	1	4	—	—	6	—	13
1930	—	1	7	6	—	1	6	—	21
Total	123	11	20	47	11	8	275	123	618
%	20.0	1.7	3.3	7.6	1.7	1.2	44.5	20.0	—

TABLE 71.

SUMMARY OF DISPENSARY STATISTICS AND OF HOME VISITING.

	1930	1929
Number of persons placed under observation for purpose of diagnosis	75	48
Number of persons for whom the period of observation exceeded two months	10	5
Number of visits paid by the Tuberculosis Officer to the homes of patients	61	59
Number of visits paid by Nurses to the homes of patients for dispensary purposes	4994	3728
Number of attendances of patients at the Dispensary :—		
Insured	2190	1076
Not Insured	1266	540
Total	3456	1616
Number of patients under Domiciliary Treatment :—		
Pulmonary	135	153
Non-Pulmonary	32	33
Total	167	186
Number of reports received from practitioners in respect of patients on Domiciliary Treatment	104	116
Number of specimens of sputum examined in connection with the work of the Dispensary :—		
Positive	147	100
Negative	309	276
Total	456	376
Number of houses disinfected during the year :—		
(i) On removal of patient to Hospital ..	108	64
(ii) On death	60	63
(iii) On changing address.. .. .	7	5
Number of Reports made to Local War Pensions Committee by the Tuberculosis Officer on general progress and capacity for work of Tuberculous Discharged ex-Service men	74	21

PART VI.

Venereal Diseases.

VENEREAL DISEASES.

The arrangements for the treatment of Venereal Disease are the same as in 1929. Two Centres are provided, one, for both male and female patients, is at the Royal Infirmary, and the other, which is at the Health Department, is an "innocent" clinic for Maternity and Child Welfare cases maritally or parentally infected.

The treatment of male patients is carried out by Dr. Cran Duthie, and that of females by Dr. Mackenzie.

The Local Authority has an arrangement with both the Manchester Public Health Laboratory and the Blackburn and East Lancashire Royal Infirmary for the examination of pathological material.

(a) The Royal Infirmary Centre :

Six hundred and thirty patients, of whom 338 were Blackburn residents, attended this Centre for the first time during the year. Of the Blackburn cases, 107 were suffering from Gonorrhœa, 41 from Syphilis, and 190 from conditions non-venereal.

Of the cases which attended for the first time during the year 48 were suffering from infections of more than one year's standing, and, as far as could be ascertained, had never received previous treatment at other centres for the same infection.

The appended Table shows the number of new cases seen yearly at the Royal Infirmary since 1921.

<i>Year.</i>		<i>Male.</i>		<i>Female.</i>		<i>Total.</i>
1921	..	334	..	191	..	525
1922	..	258	..	155	..	413
1923	..	264	..	154	..	418
1924	..	243	..	148	..	391
1925	..	225	..	131	..	356
1926	..	260	..	144	..	404
1927	..	300	..	103	..	403
1928	..	349	..	291	..	640
1929	..	380	..	251	..	631
1930	..	365	..	265	..	630

The above figures are not to be accepted as representing the true incidence of venereal disease in Blackburn. Venereal diseases, though infectious, are nevertheless non-notifiable; consequently our present methods of ascertainment, through the treatment centres and death returns, are of necessity incomplete and misleading.

The total number of attendances for all patients was 19,056, 12,688 of which were in respect of Blackburn residents. The aggregate number of in-patient days at the Royal Infirmary was 412 for Blackburn cases, and 485 for county cases.

During the year 156 males and 80 females ceased to attend the Clinic before completion of the full course, and 16 females and 21 males discontinued attendance after completion of treatment, but before final tests for cure had been carried out. These numbers are greater than in 1929.

(b) *The Victoria Street Centre:*

This centre is for the treatment of women maritally infected, and of children congenitally or accidentally infected. The Clinic forms part of the Maternity and Child Welfare Scheme, and all cases referred for treatment have passed through the Welfare Centres.

Many of these maritally-infected women are unwilling to attend the Royal Infirmary Clinic, but are quick to avail themselves of the facilities offered at the Health Office Centre.

At the beginning of the year one male and 14 females were under treatment for syphilis; 33 females for gonorrhœa; and 7 females for non-venereal conditions. In the course of the year the following cases were dealt with: Syphilis, 36; Gonorrhœa, 106; 72, non-venereal conditions. The total number of attendances made was 1,442, compared with 1,456 attendances in 1929.

It is again regrettable to note that 61 patients ceased to attend before completion of treatment, and that 20 ceased to attend after completion of treatment, but before the final tests for cure had been carried out.

Patients from Blackburn attended the following centres during the year for treatment.

<i>Treatment Centre—</i>	<i>Suffering from—</i>			<i>Other conditions</i>	<i>Total Visits</i>
	<i>Syphilis</i>	<i>Soft Chancre</i>	<i>Gonorrhœa</i>		
County Borough of Bury ...	—	—	1	—	6
County Borough of Preston ...	—	—	2	—	124

BLACKBURN ROYAL INFIRMARY—V.D. Beds : Male 2 ; Female 2.

PARTICULARS OF STAFF.

	Duties.	If Employed Whole or Part-Time on Duties in V.D. Centre.
Medical Officers— Dr. W. Cran Duthie.	In charge of Male clinic.	Part-time.
Dr. E. Mackenzie	In charge of Female clinic . .	Part-time.
Resident Medical Officers . .	Assist at male clinics	Part-time.
Nurses—Two	To prepare for and assist at clinics Do irrigations, &c., and keep registers	One whole time. One at female clinic only.
Male Attendants—Two	To prepare for and assist at male clinics. Do irrigations, &c., and general porter's work in connection with clinics.	One nearly whole-time and evenings and week-ends and one at clinics only.
Dispenser—One	General Dispensing duties	Four clinics per week.
Clerk	Preparation of statistical returns and general clerical duties	Part-time.

TABLE 72.

RETURN relating to all persons who were treated at the Treatment Centre at the Blackburn and East Lancashire Royal Infirmary during the year ended the 31st December, 1930.

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than Venereal		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Number of cases which—										
(a) at the beginning of the year under report were under treatment or observation for	174	97	4	...	207	183	4	2	389	282
(b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	7	5	...	...	11	2	..	..	18	7
Total—Items 1 (a) and 1 (b) ..	181	102	4	...	218	185	4	2	407	289
2 (a). Number of cases dealt with at the Treatment Centre during the year for the first time with infections of										
1. less than one year's standing	40	36	...	...	108	57	195	146	365	265
2. more than one year's standing	6	2	...	...	16	24	.	...	...	...
Total—Items 1 (a), 1 (b) and 2 (a)	227	140	4	...	342	266	199	148	772	554
2 (b). Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	1	..	...	...	1	2	...	...	2	2
3. Number of cases which ceased to attend—										
(a) before completing the first course of treatment for	55	19	...	...	89	51	...	...	144	70
(b) after one or more courses but before completion of treatment for	12	10	...	...	...	...	...	...	12	10
(c) after completion of treatment, but before final tests as to cure of ..	9	8	...	...	12	8	...	...	21	16
4. Number of cases transferred to other Treatment Centres after treatment for	4	2	...	...	3	2	...	...	7	4
5. Number of cases discharged after completion of treatment and observation for	4	3	1	...	26	2	196	144	227	149
6. Number of cases which, at the end of the year under report, were under treatment or observation for ..	143	98	3	...	212	203	3	4	361	305
Total—Items 3, 4, 5, and 6 ..	227	140	4	...	342	266	199	148	772	554
7. Out-patient attendances—										
(a) For individual attention by the Medical Officer	1768	2236	13	...	2874	2810	419	373	5074	5419
(b) For intermediate treatment, <i>e.g.</i> , irrigation, dressings, etc.	131	12	...	...	6661	1759	...	...	6792	1771
Total Attendances	1899	2248	13	...	9535	4569	419	373	11866	7190
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from ..	96	121	...	...	139	541	...	...	235	662

TABLE 72—(Continued).

	<i>Spirochetes.</i>	<i>For detection of Gonococci.</i>	<i>Other Organisms.</i>	<i>For Wassermann Reaction.</i>
9. Examination of Pathological material:—				
(a) Specimens which were examined at, and by the Pathologist of the Treatment Centre	4	1273	...	...
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory ... ..	...	...	...	761

Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.

A. Number of cases from each area dealt with during the year <i>for the first time</i> and found to be suffering from :	<i>Blackburn</i>	<i>Lancashire</i>	<i>Preston</i>	<i>Liverpool</i>	<i>Jarrow-on-Tyne (Durham)</i>	<i>Total</i>
Syphilis	41	43	...	...	...	84
Soft chancre ... ..	...	...	...	...	...	...
Gonorrhœa	107	97	...	...	1	205
Conditions other than venereal	190	148	1	2	...	341
Total	338	288	1	2	1	630
B. Total number of attendances of all patients residing in each area ...	12688	6364	1	2	1	19056
C. Aggregate number of "In-patient days" of all patients residing in each area	412	485	...	...	...	997
D. Number of doses of arsenobenzol compounds given in the —						
1. Out-patient Clinic	1251	1120	...	...	...	2371
2. In-patient Department	16	6	...	...	...	22
to patients residing in each area						
E. Give the names of arsenobenzol compounds used in the treatment of Syphilis and the usual initial and final doses	Novarsenobillon in doses of 0.3 to 0.6 grammes and Sulfarsenol 0.45 to 0.6 grammes. Silver Salvarsan, 0.15 to 0.30 grammes; Stabilarsan, 0.45 to 0.6 grammes.					
F. State the amount and kind of treatment usually administered to a case of Syphilis of each of the types usually dealt with at the Treatment Centre...	Similar to that published by Col. Harrison in the <i>British Journal of Venereal Diseases</i> , Jan., 1926. (This was given in full in the Report for 1925 of the M.O.H., Blackburn.)					
G. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page	These were given in full in the M.O.H. Report for Blackburn in 1925.					

(Signed)

ELLA MACKENZIE, M.A., M.D., D.P.H.,

W. CRAN DUTHIE, M.B., C.M.,

Medical Officers of the Treatment Centre

TABLE 73—(Continued).

	For detection of			For
	<i>Spirochetes.</i>	<i>Gonococci.</i>	<i>Other Organisms.</i>	<i>Wassermann Reaction.</i>
9. Examinations of Pathological material:—				
(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre . . . . .	...	...	...	...
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory. . . . .	...	227	...	57
Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.				
Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	<i>Blackburn.</i>			<i>Total.</i>
A. Number of cases from each area dealt with during the year for the first time and found to be suffering from:—				
Syphilis	17	...	...	17
Soft Chancre . . . . .	...	...	...	...
Gonorrhœa	56	...	...	56
Conditions other than Venereal	58	...	...	58
TOTAL	131	...	...	131
B. Total number of attendances of all patients residing in each area	1442	...	...	1442
C. Aggregate number of "Inpatient days" of all patients residing in each area . . . . .	...	...	...	...
D. Number of doses of arsenobenzol compounds given in the:—				
1. Out-patient Clinic	317	...	...	317
2. In-patient Dept. . . . .	...	...	...	...
E. Give the names of arsenobenzol compounds used in the treatment of Syphilis and the usual initial and final doses	Neokharsivan—0.3 to 0.6 grammes; Sulfarsenol, 1½ ct. grms to 48 ct. grms.			
F. State the amount and kind of treatment usually administered to a case of Syphilis of each of the types usually dealt with at the Treatment Centre	<p>ADULTS.—<i>Primary Syphilis</i>—Two or more courses of 10 intravenous injections of Neok. + Pil. Hydrarg, Grs. I. T.i.d.</p> <p><i>Secondary Syphilis</i>—Three or more courses of 10 intravenous injections of Neok. + Pil. Hydrarg, Grs. I. T.i.d.</p> <p>INFANTS.—One or more courses of 24 subcutaneous injections of sulfarsenol + Hyd. c Cret. Grs. ¼. T.i.d.</p>			
G. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page	<p>ADULTS.—<i>Primary Syphilis</i>—When Blood is negative at start Patient is discharged if Blood remains negative to Wassermann reaction for two years from commencement of treatment without return of symptoms.</p> <p><i>Secondary Syphilis</i>—If Blood positive at start Patient discharged when Blood negative two years after treatment has ceased without return of symptoms.</p> <p>INFANTS.—Discharged if no return of symptoms for two years after treatment has ceased.</p> <p><i>Gonorrhœa</i>—Discharged when all clinical signs have disappeared and three successive negative smears obtained from Cervix and Urethra after a menstrual period and <i>provoc. vac.</i></p>			

(Signed) ELLA MACKENZIE, M.A., M.D., D.P.H.

Medical Officer of the Treatment Centre.

PART VII.

Maternity and Child
Welfare.

ANTE-NATAL WORK.

Dr. Mackenzie, the Lady Assistant Medical Officer, conducts an Ante-Natal Clinic twice weekly, particulars of which will be found in the appended Table.

TABLE 74.

ANTE-NATAL CLINIC.

No. of Sessions held	...	...	...	...	...	...	99
No. of Attendances made	...	...	...	...	...	...	2188
No. of Individuals	...	...	...	...	...	...	747
No. of Normal Labours	...	...	...	...	...	...	351
No. of Abnormal Labours	...	...	...	...	...	...	51
No. Non-pregnant	...	...	...	...	...	...	214
No. Undelivered at End of 1930	...	...	...	...	...	...	130
Sent by Health Visitors and Centres	...	...	...	...	...	...	121
Sent by Matron, Springfield	...	...	...	...	...	...	148
Sent by Doctors	...	...	...	...	...	...	68
Sent by Midwives	...	...	...	...	...	...	97
Women who came on their own initiative	...	...	...	...	...	...	163
Women sent by another patient	...	...	...	...	...	...	124
Women sent by others	...	...	...	...	...	...	26
Primigravidæ Examined	...	...	...	...	...	...	235
Multigravidæ Examined	...	...	...	...	...	...	298
Primigravidæ undelivered at end of year	...	...	...	...	...	...	64
Multigravidæ undelivered at end of year	...	...	...	...	...	...	67

The 51 Abnormal Cases were as follows:—

Instrumental	...	...	...	12	Breech...	...	...	...	...	2
Still Births	...	...	...	25	Miscarriage	...	...	...	...	1
Cæsarean Section	...	...	...	1	Footling	...	...	...	...	1
Premature Births	...	...	...	9						

Both the number of attendances made at the Ante-Natal Clinic and individuals attending exceed the corresponding figures for 1929.

The number of cases sent by Midwives (97) is practically the same as in 1929 (92).

SUPERVISION OF MIDWIVES.

This work is undertaken by the Lady Assistant Medical Officer of Health, assisted by the Senior Health Visitor. Forty-six midwives, none of whom are subsidised by the Local Authority, notified their intention to practise during the year. Of these, six removed from the Borough, leaving 40 on the register at the end of the year.

Thirty-nine of the Midwives hold the Certificate of the Central Midwives Board, and the remaining one is a *bona fide* midwife. Thirty of the midwives are engaged in private practice, and 10 are attached to the District Nursing Association.

With one exception, the domestic and personal cleanliness of the midwives has been found satisfactory. This case has been dealt with and the cause for complaint removed.

There is again an improvement in the keeping of ante-natal records, although in many cases these records are incomplete and unsatisfactory.

Although all the midwives endeavour to carry out ante-natal care, I am of opinion that such work should be carried out under medical supervision.

Many patients are opposed to undergoing ante-natal attention, and in consequence the midwives experience difficulty in keeping their cases under observation. All the midwives aim at seeing their patients at least once in each month during the early stages of pregnancy, and at more frequent intervals as time approaches.

Although the local midwives are not subsidised by the Local Authority, compensation is paid for cases brought to the Ante-Natal Clinic and subsequently transferred to Hospital on the recommendation of the Clinic Medical Officer.

Although the number of midwives practising is adequate for the population served, it sometimes occurs that midwives are unwilling to book cases which may not be able to pay the requisite fee, or have failed to pay the fee in respect of a previous confinement. The midwives concerned invariably urge the cases to attend the Ante-Natal Clinic and to apply for admission to the Queen's Park

Hospital for the confinement. The majority, however, neglect this advice and call in a District Nurse only when parturition is imminent. The Superintendent of the District Nursing Association has stated that her nurses are frequently called in at the last moment to attend such cases, often physically unfit to pass successfully through the ordeal of child-birth, and presenting abnormalities which necessitate immediate removal to Hospital.

At the time of writing this Report the Committee is considering a scheme whereby the Local Authority would guarantee the fees of midwives in such cases, and thus ensure that all expectant mothers receive the benefit of adequate attention during the expectant and lying-in periods.

DOCTORS' ACCOUNTS UNDER SECTION 14 (1) OF THE MIDWIVES ACT, 1918.

One hundred and forty-eight accounts were received from Doctors for services rendered to patients to whom they had been called in an emergency by a qualified midwife.

This compares with 99 in 1929 and 129 in 1928. The total amount of the accounts was £189/7/0. The Sub-Committee assessed the amounts recoverable from the patients at £107/6/3, and £58/1/8 was actually paid by patients during the year.

REASONS FOR SENDING FOR MEDICAL ASSISTANCE DURING 1930.

Pregnancy :—

Toxæmic Signs or Symptoms	..	18		
Venereal Disease	.. ..	2		
Maternal Debility	.. ..	1		
Fœtal Viability	.. ..	1	—	22

Labour :—

Malpresentations :

Occipito Posterior	...	...	...	9	
Breech	...	...	...	8	
Foot	...	...	...	4	
Cord	...	...	...	3	
Transverse	...	...	...	1	
Face	...	...	...	1	
Placenta Prævia	...	...	...	1	
Precipitate Labour	...	...	...	1	
Undiagnosed	...	...	...	5	— 33

Obstructed Labour :—

Impacted Head	...	...	...	2		
Contracted pelvis	...	...	...	1	—	3

Delayed Labour :—

Uterine Inertia	...	...	...	9		
Rigid Cervix	...	..	..	1		
Hydramnios	...	..	..	1		
Causes not diagnosed	...	...	...	55	—	66

Hæmorrhages :—

Abortion	...	...	...	2		
Ante Partum Hæmorrhage	...	...	...	12		
Post Partum Hæmorrhage	...	...	...	20	—	34

Other Causes :—

Ruptured Perineum	..	..	..	142		
Premature Birth	..	..	..	15		
Retained Placenta	..	..	..	16		
Pyrexia	..	..	..	9		
Miscarriage	..	..	..	7		
Maternal Exhaustion	..	..	..	5		
Sub-Involution	..	..	..	2		
Pleurisy..	..	..	..	2		
Offensive Lochia	..	..	..	2		
Rectal Prolapse	..	..	..	1		
Phlebitis	..	..	..	1		
Hysteria	..	..	..	1		
Patients' request	..	..	..	2	—	205

Baby :—

Inflammation of Eyes...	...	...	...	33		
Dangerous Feebleness...	...	...	...	19		
Rash	...	...	...	4		
Malformation	...	...	...	3		
Still Births	...	...	...	3		
Asphyxia Pallida	...	...	...	1		
Convulsions	...	...	...	2		
Harelip	...	...	...	2		
Phimosis	...	...	...	2		
Cyst	...	...	...	1		
Greenstick Fracture	...	...	...	1		
Paresis of Arm	...	...	...	1	—	72

TOTAL ... 435

SPRINGFIELD MUNICIPAL MATERNITY HOME.

Two hundred and forty-two cases were admitted during the year, being 38 more than in 1929.

No structural alterations were carried out during the year.

1.	Number of Cases in the Home on 1st January, 1930..	..	..	..	8
2.	Number of Cases Admitted during 1930	..	..	..	242
3.	Average Duration of Stay	..	..	..	14 days
4.	No. of Cases delivered by—				
	(a) Midwives..	..	.	..	193
	(b) Doctors ..	..	..	..	41
5.	No. of Cases in which Medical Assistance was sought by the Midwife, with reasons for requiring assistance	..	..	..	81
	(a) Ante-Natal :—				
	Uterine Inertia	..	..	8	
	Malpresentation	..	..	7	
	Cardiac Disease	..	..	1	
	Fœtal Distress	..	..	1	— 17
	(b) During Labour :—				
	Post Partum Hæmorrhage	..	..	8	
	Prolapse of Cord	..	..	1	
	Adherent Placenta	..	..	1	— 10
	(c) After labour :—				
	Rupture of Perenium Sutured.			36	
	Mastitis	..	..	2	
	Offensive Lochia	..	..	1	— 39
	(d) For Infant :—				
	Ophthalmia Neonatorum	..	..	4	
	Slight Discharge of Babies' Eyes			3	
	Still Births	..	..	3	
	Harelip and Cleft Palate	..	..	1	
	Pemphigus	..	..	1	
	Injury during birth	..	..	1	
	Malformed child	..	..	1	
	Twins, dangerous feebleness	..	..	1	— 15

6. No. of Cases Notified as :

- | | |
|--|-------------|
| (a) Puerperal Fever | <i>Nil.</i> |
| (b) Puorperal Pyrexia (<i>i.e.</i> rise of temperature to 100·4° F for 24 hours, or its recurrence within that period): with the result of treatment in each case | 2 |
| (2) Interstitial Mastitis. Both cases were normal when discharged from home. | |

7. No. of Cases of Pemphigus Neonatorum 1

8. No. of Cases Notified as Ophthalmia Neonatorum, with result of Treatment in each case 4

Pathological Report of each case Positive :

- | | |
|---|--|
| (1) Transferred to Blackburn Royal Infirmary. | |
| (2) Discharged home 19th day. Eyes Normal. | |
| (3) Discharged home 14th day. Eyes Normal. | |
| (4) Transferred to Isolation Hospital. | |

9. No. of Cases of " Inflammation of the Eyes," however slight 3

10. No. of Infants not entirely breast-fed while in the Institution, with reasons why they were not breast-fed 2

- | | |
|--------------------------------------|--|
| (1) Double Harelip and Cleft Palate. | |
| (1) General debility of mother. | |

11. No. of Maternal Deaths, with causes *Nil*12. No. of Fœtal Deaths (*a*) Stillborn, and (*b*) within 10 days of birth, and their Causes—and the Results of the post-mortem examination, if obtainable :—

- | | | |
|--------------------------------------|---|-------------|
| (a) Persistent Occipito Posterior .. | 2 | |
| Prolapse of Cord | 3 | |
| Complicated Breech | 2 | |
| Macerated Fœtus | 4 | |
| Premature, 24 weeks | 2 | |
| Injuries during birth | 1 | — 14 |
| (b) | | <i>Nil.</i> |

Every effort is made to ensure that all cases booked for Springfield receive adequate Ante-Natal care and, unless a private practitioner is in attendance the cases are seen regularly, either at Victoria Street or at Springfield.

During the year eight cases were admitted at the request of private practitioners for Ante-Natal treatment of the following conditions :—

Varicose Veins of Legs	..	..	..	1
Albuminuria	..	..	..	2
Debility..	..	..	..	3
Persistent Vomiting	..	..	..	1
Malpresentation	..	..	..	1

PUERPERAL FEVER AND PUERPERAL PYREXIA.

(a) *Puerperal Fever :*

Seven cases were notified during the year, one, which was not investigated, being in respect of an out-of-the Borough case.

No. of Cases Notified	...	...	...	...	...	...	7
Borough Cases	...	...	...	...	...	...	6
Out of Borough Cases	...	...	...	...	...	...	1
No. of Cases Attended by Midwife alone	...	...	...	...	...	...	1
No. of Cases Attended by a Doctor and Midwife	...	...	...	...	...	...	4
No. of Cases Attended in an Institution (1 Out-of-Borough Case)	...	...	...	...	...	...	2
No. of Cases Treated entirely at Home	...	...	...	...	...	...	1
No. of Cases Treated in Hospital	...	...	...	...	...	...	6
No. of Cases Attended by a District Nurse...	...	...	...	...	...	...	1
No. of Cases which Recovered	...	...	...	...	...	...	7

All the cases recovered.

In 1929 nine cases of Puerperal Fever were notified, one of which terminated fatally. The Puerperal Fever rate for 1930 was 4·3, compared with one of 5·3 per 1,000 births in 1929.

(b) *Puerperal Pyrexia :*

Sixteen cases were notified as Puerperal pyrexia ; two cases, which proved to be septicæmia, died.

No. of Cases Notified	...	...	...	...	...	...	16
Borough Cases	...	...	...	...	...	...	12
Out of Borough Cases (these were not investigated)	...	...	...	...	...	...	4
No. Attended by a Doctor alone at Confinement	...	...	...	...	...	...	2
No. Attended by Doctor and Midwife at Confinement	...	...	...	...	...	...	9
No. Attended in an Institution at Confinement	...	...	...	...	...	...	5
No. Treated at Home entirely	...	...	...	...	...	...	6
No. Treated in Hospital (Two Died)	...	...	...	...	...	...	10
1 Borough Case and 1 Out-of-Borough Case (both for Sepsis)							
No. Attended by District Nurses	...	...	...	...	...	...	5
No. of Cases which Recovered	...	...	...	...	...	...	14
No. of Cases which Died	...	...	...	...	...	...	2

Four of the notifications were in respect of non-Blackburn residents and were not investigated. The pyrexia rate for 1930 was 10·03 per 1,000 births, as compared with one of 9·07 in 1929.

Specialist opinion in cases of puerperal fever and pyrexia is available if request be made to the Health Department by local practitioners. Examination of pathological material is carried out at the Public Health Laboratories in Manchester and Liverpool.

Beds are provided in a special ward at the Corporation Hospital; four cases, all of which recovered, were admitted during the year.

Cases of puerperal fever and puerperal pyrexia are also received into the Royal Infirmary and the Queen's Park Hospital. During the year no difficulty has been experienced in securing hospitalisation of cases of puerperal infection.

All cases notified are investigated by the Lady Assistant Medical Officer, and particulars are entered on a special record card, which is filed for future reference.

MATERNAL MORTALITY.

During the year 19 deaths occurred in the puerperal state, of which 12 were in respect of out-of-borough cases admitted to hospitals or nursing homes in Blackburn by reason of puerperal abnormality.

The appended Table gives a classification of the causes leading to death :

Surgical Shock, difficult labour	..	..	..	1
Cerebral hæmorrhage, albuminuria	..	..	..	1
Uræmia	..	..	..	1
Acute Pneumonia	..	..	..	1
Interstitial Nephritis	..	..	..	1
Post-partum hæmorrhage	..	..	..	1
Acute Peritonitis	..	..	..	1

All maternal deaths are investigated by Dr. Mackenzie, in collaboration with the private practitioners concerned, and the findings are permanently recorded.

The number of maternal deaths per 1,000 births registered is 4·38, a figure which compares, not unfavourably, with the corresponding rates for England and Wales and those of the majority of the large towns.

An analysis of the maternal mortality figures for Blackburn for the preceeding 40 year period reveals that the lowest rate was 3·25 in 1915, and that the highest rate (9·65) occurred in 1929.

The rates for the decennial periods 1891—1900, 1901—1910, 1911—1920, and 1921—1930 were 5·59, 6·85, 5·56 and 6·24 respectively.

Consideration of the appended Table will show that the yearly rates exhibit no regularity either as regards improvement or the reverse. The figures are, on the other hand, erratic in their yearly variation.

TABLE 75.
MATERNAL MORTALITY
RATES PER 1,000 BIRTHS REGISTERED.

YEAR	SEPSIS	OTHER CAUSES	TOTAL	YEAR	SEPSIS	OTHER CAUSES	TOTAL
1891	1·71	2·70	4·41	1911	1·75	5·60	7·35
1892	2·31	4·64	6·95	1912	1·09	3·28	4·37
1893	0·51	4·38	4·89	1913	1·02	4·46	5·48
1894	0·55	5·24	5·79	1914	2·14	4·28	6·42
1895	1·79	5·89	7·68	1915	1·22	2·03	3·25
1896	1·40	7·03	8·43	1916	1·93	1·93	3·86
1897	1·92	2·75	4·67	1917	0·61	5·53	6·14
1898	0·54	3·00	3·54	1918	1·29	5·80	7·09
1899	2·19	3·29	5·48	1919	2·72	3·28	6·00
1900	2·90	1·16	4·06	1920	1·06	4·59	5·65
1901	2·65	3·54	6·19	1921	2·37	1·97	4·34
1902	3·27	4·73	8·00	1922	0·45	6·43	6·88
1903	1·50	6·05	7·55	1923	2·39	4·29	6·68
1904	0·96	4·19	5·15	1924	1·51	3·53	5·04
1905	3·13	6·57	9·60	1925	2·10	3·68	5·78
1906	1·46	3·80	5·26	1926	4·01	4·01	8·02
1907	3·58	5·07	8·65	1927	1·76	5·87	7·63
1908	0·58	4·09	4·67	1928	0·58	3·46	4·04
1909	2·23	4·14	6·37	1929	1·93	7·72	9·65
1910	2·71	4·41	7·12	1930	0·00	4·38	4·38
Average	1891—	1900	..	..	1·58	4·00	5·59
	1901—	1910	..	..	2·20	4·65	6·85
	1911—	1920	..	..	1·48	4·07	5·56
	1921—	1930	..	..	1·71	4·53	6·24

NOTIFICATION OF BIRTHS.

The Notification of Births Act, 1915, requires that all births be notified to the Medical Officer of Health within 36 hours of their occurrence. Following the receipt of notification, a very large proportion of the births are visited. All cases notified by midwives are visited as soon as possible after the birth. Cases attended by a doctor are visited, where the home circumstances warrant it, as soon as possible after the doctor ceases attendance.

It is required that births be both registered and notified, and although registration is invariably carried out, 92 parents neglected to notify during the year. In order that no births be missed, the notifications are checked by comparison with the returns of the Registrar of Births, and a letter sent to the parents of any child whose birth has not been notified.

The following Table illustrates the sources of notifications during the year :—

	<i>Live Births.</i>		<i>Still Births.</i>		<i>Total.</i>	<i>Percentage.</i>	
Doctors	79	..	21	..	100	..	5·85
Midwives	1405	..	70	..	1475	..	83·1
Parents and Others	179	..	17	..	196	..	11·05

STILL BIRTHS.

The number of still births registered during the year was 108. An ætiological classification of the causes to which the still births were attributable will be found in Table 76.

NEO-NATAL DEATHS.

During the year 82 infants died within two months of birth ; 28 of the deaths were ascribable to foetal states, 36 to prematurity, and the remainder to post-natal causes.

The number of neo-natal deaths (*i.e.*, within the first four weeks of life) was 75, a figure equivalent to 4·5% of live births notified.

Table 76 classifies the causes to which the still-births and neo-natal deaths were ascribed.

Number of premature births brought to the notice of Health

Department	65
Number living at end of 1930	29

Causes of prematurity :—

Multiple pregnancy	3
Albuminuria in mother	8
Other illness of mother	6
Shock	3
Venereal Disease	5
Ante-partum hæmorrhage	2
Not known	38
Number still living	29
Number Dead	36

PREMATURE BIRTHS.

All premature births are followed up, and of 65 premature infants born during 1930, 29, or 44·6 were alive at the end of the year.

INFANTILE MORTALITY.

During the year there were 133 deaths of infants, compared with 125 in 1929. This figure corresponds to an infantile mortality rate of 83·3 per 1,000 births registered, compared with 80·4, in 1929.

Of the deaths certified, 127 were of legitimate, and six of illegitimate children. The rate of infantile mortality amongst legitimate infants was 83·7 per 1,000 legitimate births registered, and amongst illegitimate children, 75·9 per 1,000 illegitimate births registered.

Of the deaths certified 54, or 40·6%, occurred within the first month of life.

The more important causes of death were as follows :—

<i>Cause.</i>	<i>Number of Deaths.</i>		<i>Percentage of Total Infantile Deaths.</i>
Atrophy, Debility and Marasmus..	18	..	13·5
Premature Birth	36	..	27·0
Congenital	17	..	12·8
Pneumonia	20	..	15·0

The number of deaths from bronchitis (6), and pneumonia (20), is lower than in 1929, when the figures were 13 and 24 respectively.

St. Mary's Ward shows the highest rate of infantile mortality (205), followed by St. Thomas' (128), and St. John's (109). St. Stephen's exhibited the lowest rate (36).

Taking the Infantile Mortality over a period of ten years, St. Silas's shows by far the best figures, St. Stephen's comes next, closely followed by St. Andrew's. The worst wards during the same period were St. Mary's, St. Peter's and Trinity. In Table 77 it will be noted that, with the exception of St. Thomas' Ward, the density of population is lowest in those wards with the lowest infantile mortality rate.

TABLE 77.

INFANTILE MORTALITY IN WARDS AND COMPARISON WITH
DENSITY OF POPULATION.

WARD	Estimated Population mid- dle of 1930	Persons per Acre	Rooms per person	Births	Birth Rate	Infantile Mortality	Deaths	Death Rate	Natural Increase or Decrease of Popul'n 1929-30	Census Popula- tion 1926 (March)
	1	2	3	4	5	6	7	8	9	10
St. Stephen's ..	10906	9.2	1.08	193	17.7	36	175	16.0	+18	11212
Trinity	8771	58.0	1.05	125	14.2	80	110	12.5	+15	8696
St. Michael's ..	8883	14.1	1.10	84	9.4	95	70	7.8	+14	8787
St. John's	7117	69.2	1.13	73	10.2	109	96	13.4	-23	6957
St. Silas's	8921	8.9	1.50	67	7.5	59	116	13.0	-49	9210
St. Paul's	9660	78.0	1.12	124	12.8	56	133	13.7	-9	9715
St. Peter's	6640	51.1	1.05	106	15.9	103	87	13.1	+19	6613
St. Mary's	5463	31.8	1.02	107	19.5	205	104	19.0	+3	5474
St. Matthew's ..	9222	83.2	1.05	117	12.6	68	110	11.9	+7	9200
St. Thomas'	11941	6.8	1.08	109	9.1	128	149	12.4	-40	11941
Park	9384	14.3	1.08	120	12.7	50	121	12.9	-1	9467
St. Luke's	7492	44.2	1.03	99	13.2	60	87	11.6	+12	7641
St. Mark's	10313	25.5	1.13	104	10.0	96	113	10.9	-9	10311
St. Andrew's ..	10587	9.2	1.07	167	15.7	71	134	12.6	+33	11273
	125300	16.2	1.11	1595	12.7	83	1605	12.8	-10	26497

COMPARISON OF BLACKBURN INFANTILE MORTALITY RATE WITH THAT OF
ENGLAND AND WALES FROM 1921—1930.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Blackburn.....	109	98	100	84	97	89	77	80	80	83
England and Wales..	83	77	69	75	75	70	69	65	74	60

TABLE 78.

INFANTILE MORTALITY IN WARDS FROM 1921 TO 1930.

WARD.	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	Aver- age for 10 y'rs
St. Stephen's	92	67	56	68	65	130	45	47	62	36	66.8
Trinity	130	129	163	60	101	62	153	118	96	80	109.2
St. Michael's	83	78	105	99	80	78	46	65	108	95	83.7
St. John's	140	76	75	101	61	66	52	108	99	109	88.7
St. Silas's	59	69	50	44	29	67	41	53	63	59	53.4
St. Paul's	134	133	130	76	107	83	59	73	110	56	96.1
St. Peter's	114	170	91	149	105	104	119	127	116	103	119.8
St. Mary's... ..	98	138	128	99	188	158	97	77	126	205	131.4
St. Matthew's	127	111	90	120	65	106	41	105	39	68	87.2
St. Thomas's	106	71	130	76	84	53	76	77	103	128	90.4
Park	108	69	110	86	118	75	80	81	58	50	83.5
St. Luke's... ..	99	116	74	90	118	92	147	111	44	60	95.1
St. Mark's... ..	129	106	85	60	122	99	61	51	71	96	88.0
St. Andrew's	87	72	81	73	110	75	68	60	56	71	75.3
Borough	109	98	100	84	97	89	77	80	80	83	89.7

TABLE 79.—DEATHS UNDER ONE YEAR, ARRANGED ACCORDING TO DAYS, WEEKS AND MONTHS.

CAUSES OF DEATH.	1st day.	2nd day.	3rd day.	4th day.	5th day.	6th day.	7th day.	1st week.	2nd week.	3rd week.	4th week.	Under 1 month.	1 month to 2.	2 months to 3.	3 months to 4.	4 months to 5.	5 months to 6.	6 months to 7.	7 months to 8.	8 months to 9.	9 months to 10.	10 months to 11.	11 months to 12.	TOTAL.
	Certified	Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
All Causes {	21	13	6	3	3	3	4	53	11	7	3	74	7	4	8	7	6	3	7	4	5	5	2	132
Uncertified ...	1	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	1
Smallpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chickenpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2	—	1	—	—	6
Scarlet Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping-cough ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	2
Diphtheria and Croup ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
Erysipelas ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Abdominal Tuberculosis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningitis (<i>not Tuberculous</i>) ...	—	—	—	—	—	—	—	—	—	—	—	—	2	1	1	—	—	—	—	—	—	—	—	8
Convulsions ...	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Laryngitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bronchitis ...	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	—	1	—	—	—	—	6
Pneumonia (<i>all forms</i>) ...	—	—	—	—	1	—	—	1	—	—	1	2	—	2	2	3	2	—	2	4	3	1	1	20
Diarrhoea ...	—	1	—	—	—	—	—	1	1	—	—	2	—	1	1	2	—	—	—	—	—	—	—	6
Enteritis ...	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	1
Gastritis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Suffocation, overlying ...	1	—	1	—	—	—	—	2	1	—	—	3	—	—	—	—	—	—	—	—	—	—	—	3
Injury at birth ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atelectasis ...	—	1	—	—	—	—	—	1	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—	2
Congenital Malformations ...	6	2	1	—	1	—	2	13	2	—	—	15	—	1	—	—	1	—	—	—	—	—	—	17
Premature Birth ...	13	7	3	2	1	2	1	28	3	2	1	34	2	—	—	—	—	—	—	—	—	—	—	36
Atrophy, Debility and Marasmus ...	2	1	—	1	1	—	—	5	3	3	1	12	1	—	3	1	—	—	—	—	1	—	—	18
Other causes ...	—	—	1	—	—	—	1	2	—	—	—	2	—	—	—	—	—	1	2	—	1	—	—	7
TOTAL ...	22	13	6	3	3	3	4	54	11	7	3	75	7	4	8	7	6	3	7	4	5	5	2	133

Nett Births registered during the calendar year ... { legitimate illegitimate ... }
 Nett Deaths registered during the calendar year of ... { legitimate infants illegitimate infants ... }

TABLE 80.

DEATH RATES UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	RATES PER 1,000 BIRTHS.													
	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	
Small-pox	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Chicken-pox	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Measles	4.5	0.0	3.5	1.1	2.7	0.9	0.5	4.2	0.5	3.5	0.0	0.0	3.7	
Scarlet Fever	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Whooping-cough	3.8	0.5	0.0	3.5	1.8	2.3	2.0	2.1	3.4	0.0	1.1	1.2	1.2	
Diphtheria and Croup	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.6	
Erysipelas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Tuberculous Meningitis	3.2	1.0	1.0	0.0	0.4	0.4	0.5	0.0	0.5	0.0	0.0	0.6	0.0	
Abdominal Tuberculosis	2.5	0.5	0.4	1.1	0.4	0.0	0.5	0.5	0.5	0.0	0.5	0.0	0.0	
Other Tuberculous Diseases	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.6	0.0	
Meningitis (<i>not Tuberculous</i>)	1.9	0.0	4.2	0.7	2.3	0.9	1.0	2.1	2.2	0.5	1.7	1.9	0.0	
Convulsions	5.1	4.9	4.4	8.3	4.5	4.3	5.0	5.2	2.2	2.9	2.8	4.5	5.0	
Laryngitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Bronchitis	14.8	11.4	10.2	10.6	5.9	7.1	7.0	12.0	8.6	6.4	10.3	8.3	3.7	
Pneumonia (<i>all forms</i>)	10.9	10.8	10.2	14.2	12.8	12.4	12.6	13.1	13.2	11.7	9.8	15.4	12.5	
Diarrhœa	10.9	5.4	10.2	7.9	3.2	4.3	5.5	4.7	4.0	7.0	1.7	2.5	3.7	
Enteritis	3.2	0.0	1.4	4.7	4.1	4.8	0.0	0.5	1.1	0.0	0.5	0.0	0.6	
Gastritis	0.0	0.5	1.7	1.1	1.8	0.9	3.0	1.0	1.7	1.7	0.0	0.0	0.0	
Syphilis	3.2	0.5	1.7	2.3	0.9	2.8	2.0	2.6	0.0	0.0	2.3	0.6	0.0	
Rickets	0.0	1.0	0.0	1.5	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Suffocation, overlying	0.0	0.5	0.7	0.0	0.4	0.4	0.0	0.0	0.0	0.5	0.5	0.6	1.8	
Injury at Birth	0.0	0.5	1.4	0.3	1.3	0.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0	
Atelectasis	2.5	1.6	1.7	2.7	0.4	0.9	0.5	0.5	0.0	2.3	0.0	0.6	1.2	
Congenital Malformations	6.4	2.7	4.2	3.9	4.5	10.5	3.5	5.7	5.7	3.5	0.5	2.5	10.6	
Premature Birth	30.9	26.6	23.7	22.5	25.7	25.3	15.6	20.5	23.5	14.7	16.1	20.6	22.5	
Atrophy, Debility and Marasmus	7.9	16.3	18.0	14.2	14.2	10.9	10.6	8.6	14.3	17.0	21.9	13.5	11.2	
Other causes	10.3	9.2	9.9	7.1	9.6	9.5	14.1	13.6	6.3	4.7	8.6	6.4	4.3	

THE PRE-SCHOOL CHILD.

CAUSES OF DEATH IN CHILDREN FROM ONE TO FIVE YEARS OF AGE.

	1930	1929
Pneumonia and Bronchitis	19	29
Infectious Diseases (Non-Tubercular)	22	10
Tuberculosis (all forms)	3	5
Digestive System Diseases	4	5
All other causes	14	21
	—	—
	62	70
	—	—

There are now 14 Nursery Classes in Blackburn, with accommodation for 500 children under the age of five years. The work carried out at these classes has been fully described in the School Medical Report.

Many of the children in attendance at these schools have been under supervision at the Child Welfare Centres. In order to secure continuity the Assistant Medical Officer for Maternity and Child Welfare, who is also Assistant School Medical Officer, undertakes the School Medical inspection and treatment of Nursery Class children.

OPHTHALMIA NEONATORUM.

Twenty-one cases were notified during the year, one of which was in respect of an out-of-the Borough case.

A bed is now available at the Corporation Hospital for the reception of cases of ophthalmia where adequate attention is not possible in the home.

TABLE 81.

RESULTS OF TREATMENT.

Cases Treated.			Vision Unimpaired	Vision Impaired	Total Blindness	Deaths.
Notified	At Home.	In Hospital				
21	11	10	21	—	—	—

All of the cases treated at home were attended by District Nurses.

MATERNITY AND CHILD WELFARE CENTRES.

There are six Maternity and Child Welfare Centres in the Borough, situated at Princes Street, Nova Scotia, Kendal Street, Griffin Parochial Hall, Cornelian Street, and Harwood Street. The latter Clinic is to be transferred in May of the present year to more convenient premises at St. Jude's Sunday School, Hozier Street. Two sessions have been held each week at Harwood Street, and reorganisation of duties during the early part of the year made it possible, without increase of staff, to hold an additional weekly session at Kendal Street.

In the following Table it will be noted that the attendances numbered 26,231, the highest number as yet recorded in Blackburn.

The average attendance per session at all Centres shows an increase over last year, if Kendal Street be excepted ; here the number is less, owing to duplication of the Sessions.

TABLE 82.

	Princes Street.	Harwood St. (2 sessions weekly).	Bolton Road	Kendal Street (2 sessions weekly).	Griffin.	Cornelian Street	Total, 1930.	Total, 1929.	Total, 1928.
Infants :—									
New cases under 1 year	112	253	140	191	141	54	891	...	..
No. of re-attendances..	1370	3236	1223	2429	1484	1027	10769	..	.
New cases over 1 year..	10	30	30	29	29	8	136	..	.
No. of re-attendances..	1818	4116	1997	3038	1685	1145	13799	..	..
Attendances of Infants	3310	7635	3390	5687	3339	2234	25595	..	..
Consultations with Dr.	440	1513	551	1480	725	458	5167	..	..
Expectant Mothers—									
No. of new cases ..	24	29	11	38	1	8	111	..	..
No. of re-attendances	112	147	26	150	65	25	525	..	..
Total Attendances of Expectant Mothers..	136	176	37	188	66	33	636	..	..
Total Attendances.. ..	3446	7811	3427	5875	3405	2267	26231	..	..
Average Attendance per session 1930	70.4	78.7	69.2	63.9	68.1	46.4	*535	..	..
1929	65.0	70.0	69.0	94.0	61.0	40.0	..	*483	..
1928	84.0	76.9	80.2	100.0	66.9	31.5	..	..	*533

* Total average attendance *each week* at all the Centres.

A doctor attends at each session, together with two Health Visitors, and assistance is given by three or four voluntary workers. To these ladies I wish to express my thanks for the enthusiastic manner in which they have performed their self-imposed duties.

Of the 1,663 live births notified during the year, 891, or 53·5%, attended the Infant Consultation Centres.

The percentages seen by a Doctor at each session per Clinic are as under :—

Princes' Street	13·2
Copy Nook	19·8
Nova Scotia	16·2
Kendal Street	26·0
Griffin	21·7
Cornelian Street	20·5

The talks by Health Visitors at the Clinics have been continued. The syllabus is as under :—

I. Expectant Motherhood. II Care of the New-Born Infant. III The Diet of a Nursing Mother. IV Breast Feeding. V Artificial Feeding. VI Weaning. VII The Hygiene of Infancy. VIII Baby Clothes. IX The Development of the Child. X Feeding from 1-5 Years. XI Rickets. XII Common Ailments of Infancy.

The appended Table shows the deaths of babies who attended the Clinics during their first year, as compared with the deaths of those who never attended the Clinics.

TABLE 83.

Area	Deaths	Attended a Clinic		Attendance at Birth			Full Time Baby		Births during same period.	Deaths in Institutions			
		Yes	No	Doctor	Mid-wife	Doctor & Mid-wife	Yes	No		Queen's Park	Royal Infirmary	Spring field	Reg. Mat. Home
District I.	23	9	14	6	11	6	14	9	294	10	1	..	..
„ II.	17	3	14	..	12	5	10	7	213	2	1	..	..
„ III.	25	6	19	3	14	8	17	8	308	3	..	..	..
„ IV.	20	5	15	4	9	7	14	6	154	6	1	..	..
„ V.	15	2	13	3	7	5	10	5	185	2	..	..	..
„ VI.	21	6	15	5	8	8	16	5	264	3	3	..	..
„ VII.	12	2	10	..	7	5	7	5	177	2	..	..	..
	133	33	100	21	68	44	83	45	1595	28	6	..	..

DENTAL TREATMENT OF MATERNITY AND CHILD WELFARE CASES.

Mr. H. Yates, the Senior Dental Surgeon, carried out the following work in connection with Maternity and Child Welfare Cases :—

				1930		1929
Number of Sessions held	..	..	..	58	..	67
Number of Patients : Mothers	..	..	..	121	..	139
Children	..	..	..	348	..	286
Permanent Teeth Extracted	..	..	..	184	..	305
Permanent Teeth Filled	..	..	..	62	..	70
Temporary Teeth Extracted	..	..	..	580	..	447
Temporary Teeth Filled	..	..	..	28	..	15
Other Operations	..	..	..	62	..	83

From the above Table it will be noted that the dental work in connection with the Maternity and Child Welfare Scheme continues to expand, and that the number of patients examined during the year shows an increase over the figures for previous years.

TABLE 84.

THE WORK OF THE HEALTH VISITORS.
HOME VISITING.

	<i>District</i> I.	<i>District</i> II.	<i>District</i> III.	<i>District</i> IV.	<i>District</i> V.	<i>District</i> VI.	<i>District</i> VII.	<i>Totals</i>
Visits to Expectant Mothers—								
First Visits	58	19	27	24	19	57	92	296
Re-visits.. ..	59	22	22	58	106	39	104	410
Ineffective Visits ..	5	...	10	4	9	...	7	35
Infants under 1 year—								
First Visits	269	221	281	152	144	277	165	1509
Re-visits.. ..	629	620	718	523	529	811	662	4492
Ineffective Visits ..	79	62	190	115	158	42	111	757
Infants aged 1 year—								
Re-visits.. ..	659	598	649	485	400	685	544	4020
Special Visits.. ..	5	...	...	...	6	3	...	14
Ineffective Visits ..	66	61	127	31	57	45	95	482
Children 2—5 years ..	1211	1367	1106	746	433	1446	1039	7348
Ineffective	204	105	210	4	67	12	231	833
Ophthalmia								
Neonatorum—								
First Visits	1	4	1	1	3	2	2	14
Re-visits.. ..	3	7	2	1	2	2	2	19
Diarrhœa—								
First Visits	1	1	2	...	...	...	...	4
Re-visits.. ..	2	...	1	...	...	...	...	3
Stillbirths	16	12	12	5	6	20	11	82
Doctors' Accounts ..	19	27	27	14	8	43	10	148
Milk (Mothers and Children Order)—								
Visits	2	3	...	...	...	1	...	6
Midwives—								
Routine	103	...	...	...	...	...	...	103
Special	5	...	...	...	...	...	...	5
Ineffective	63	...	...	...	...	...	...	63
Puerperal Fever Visits	10	6	2	4	6	3	...	31
Houses where deaths of infants occurred	17	6	10	16	7	6	4	66
Miscellaneous Visits..	27	24	22	...	17	...	...	90
TOTALS .. 1930 ..	3513	3165	3419	2183	1977	3494	3079	20830
1929 ..	3029	3326	3057	1943	2200	2958	3018	19531

TABLE 85.

CLINIC SESSIONS ATTENDED.

	<i>District</i> I.	<i>District</i> II.	<i>District</i> III.	<i>District</i> IV.	<i>District</i> V.	<i>District</i> VI.	<i>District</i> VII.	<i>Totals.</i>
Maternity and Child Welfare Clinics ..	99	95	111	98	129	102	136	770
Ante-Natal Clinics ..	17	14	16	94	14	16	16	187
Special V.D. Clinics ..	...	14	...	47	15	15	4	95
Dr. Briggs' Ortho- pædic Clinic	5	...	6	5	5	...	4	25
Dental & other Clinics	20	19	8	19	15	17	16	114
TOTALS ..	141	142	141	263	178	150	176	1191
Total Houses visited ..	2862	2631	2901	1764	1700	2700	2649	17207
Total Persons visited. .	3378	3164	3479	2182	1965	3473	3139	20780

MATERNITY AND CHILD WELFARE ACT, 1918.

The following Table gives the number of families to whom assistance was rendered during 1930 under the Milk (Mothers and Children) Order.

TABLE 86.

Price.	No. on Jan. 1st, 1930.	New Cases during Year.	Cases Discontinued.	No. on Dec. 31st, 1930.
Free	102	236	191	147
Quarter Price	10	57	51	16
Half-Price	1	29	23	7
TOTAL	113	322	265	170

For former years the corresponding figures (totals) are :—

1923	*94	433	363	†164
1924	*164	494	528	†130
1925	*130	242	255	†117
1926	*117	316	238	†195
1927	*195	367	323	†239
1928	*239	363	482	†120
1929	*120	264	271	†113

* Beginning of Year. † End of Year.

During the year 15,941 pounds of dried milk have been supplied to expectant and nursing mothers and young children at a cost to the Local Authority of £838/18/3. In 1929, 17,305 pounds were supplied at a cost of £621/18/0. The nett cost in 1930, therefore, rose by £217/0/3.

CARE OF ILLEGITIMATE CHILDREN.

No special provision is made by the Corporation for the care of illegitimate children or unmarried mothers ; this work is undertaken at Viewfield Hostel by the Manchester Diocesan Association for Preventive and Rescue Work. The Health Department maintains a close co-operation with the authorities of the Hostel, and takes an active interest in the important work carried out there.

I am indebted to Miss Duckworth for the appended particulars :—

	<i>Mothers.</i>	<i>Babies.</i>	<i>Boarders.</i>
Number of Beds	15	15	4
Number of Cases Admitted, 1930.. ..	17	16	...
Number in Hostel, Jan. 1st, 1930.. ..	8	7	1
Number returned to relatives and friends ..	8	8	..
Number of Mothers sent to situations ..	4	..	..
Babies kept as boarders.. .. .	..	3 (for varying periods)	..
Babies taken back as boarders .. .. .	..	..	..
Baby boarders discharged .. .. .	..	2 (adopted)	..

At the end of the year there were four babies under one year. Of these two were on four-hourly breast feeds.

NURSING HOMES REGISTRATION ACT, 1927.

On receipt of application under the above Act for registration of premises, the premises are visited by either the Medical Officer of Health or by Dr. Mackenzie. On the occasion of this visit a survey is made of the available accommodation, advice is given as to structural or other alterations required, and the number of beds to be used for the reception of cases is decided upon.

Following registration the Homes are visited quarterly by Dr. Mackenzie, and at frequent intervals by the Senior Health Visitor. All have been found satisfactory.

The appended Table gives particulars of applications for registration in 1930 :—

	<i>Nursing Homes.</i>	<i>Maternity Homes.</i>
Number of Applications	0	4
Number of Houses Registered	0	4
Number of Orders made refusing or Cancelling Registration	0	0
Number of Appeals against such Orders..	0	0
Number of Applications for Exemption from Registration	0	0
Number of cases in which Exemption has been—		
(a) Granted	0	0
(b) Withdrawn	0	0
(c) Refused.. .. .	0	0

(a) Maternity Homes :

At the beginning of the year there were eight private maternity homes in Blackburn ; during the year four further homes were registered and two homes were discontinued. At the end of the year 24 lying-in beds and 10 labour beds were available in private homes.

(b) Nursing Homes :

At the end of the year there were 3 registered Nursing Homes in Blackburn, with a total of 25 beds for the reception of the sick.

CHILDREN ACT, 1908.—PART I.

The appended Table gives particulars of infants nursed out for reward within the Borough :—

(a) Number of Nursed Out Children Transferred from Guardians on April 1st, 1930	..	..	..	10
(b) Number of New Cases during 1930	..	..	..	19
(c) Number who Left the Borough during 1930	..	..	..	7
(d) Number at present in the Borough	..	..	..	14
(e) Number found to be :—				
(i) Satisfactory ..	..	..	..	28
(ii) Unsatisfactory	..	..	..	1

During the year four children ceased to be nursed out for reward on removal to charitable institutions, two passed out of observation on attaining the age of seven years, and two returned to relatives.

Inspection duties were undertaken by the Health Visiting Staff, who visit each case at least once in six weeks. All the children have been found to be well cared for ; only one case was found to be accommodated under unsatisfactory conditions, in that it resided with a family, a member of which was suffering from open tuberculosis. This child was found other accommodation.

TABLE 87.

FEEDING OF INFANTS UP TO SIX MONTHS OF AGE—PERIOD FROM JULY 1ST, 1929, TO JUNE 30TH, 1930.

Condition at end of 6 months	Percentage of 1371 children investigated.	Breast entirely.	BREAST FEEDING ALONE UP TO END OF						BREAST FEEDING JOINTLY WITH ARTIFICIAL UP TO END OF						Artificial entirely.	Not Fed.
			3 weeks	1st m'nth	2nd m'nth	3rd m'nth	4th m'nth	5th m'nth	1st m'nth	2nd m'nth	3rd m'nth	4th m'nth	5th m'nth	6th m'nth		
Satisfactory	84.4	36.3	2.4	9.0	10.0	7.1	5.7	10.9	0.69	0.69	0.86	0.34	0.0	19.0	13.4	0.0
Fairly Satisfactory.	5.7	17.9	2.5	12.8	12.8	12.8	1.2	8.9	2.5	2.5	0.0	1.2	0.0	1.2	23.0	0.0
Unsatisfactory ...	5.0	17.1	7.1	7.1	14.2	8.5	1.4	2.8	5.7	1.4	1.4	0.0	1.4	2.8	28.5	0.0
Dead	4.9	12.1	12.1	4.5	1.5	3.0	3.0	4.5	3.0	1.5	0.0	0.0	1.5	0.0	13.6	39.3

PART VIII.

Miscellaneous.

ULTRA-VIOLET LIGHT TREATMENT.

The Ultra-Violet Light Clinic at the Corporation Hospital, temporarily closed in 1929, was re-opened in October. A second Clinic was also opened at the Health Department, two carbon arcs and one mercury vapour lamp being installed there. These three lamps, no longer of service at the Corporation Hospital, following the change-over from direct to alternating current, were transferred to the Health Office, and suitable lamps were substituted by the Electricity Department at the Hospital. Duplication of the Clinics has resulted not only in a wider range of cases being treated, but also overcomes the objection of many mothers whose physical powers were severely taxed by the steep ascent to the Hospital.

In Table 88 it will be noted that of 173 children referred from School Medical Inspection who attended the Victoria Street Centre during the year, 55, or 31·2%, were cured. Of cases discharged, 14, or 8·1%, showed no change.

Table 89 contains particulars of children referred from other branches of the Health Department and from outside sources.

Tables 90 to 92 refer to the Corporation Hospital Clinic.

TABLE 88.

ULTRA-VIOLET LIGHT CLINIC.

REFERRED FROM MEDICAL INSPECTION, SCHOOL DEPARTMENT.

HEALTH DEPARTMENT, VICTORIA STREET.

Diagnosis.	No. of Cases Treated.			No. of Cases Discharged.			No. of cases attending at end of year.	Total number of exposures given to all cases attending.	
	Total	Male	Female	Cured	Improved	No Change.		Carbon Arc	Merc. Vap.
General Debility	25	15	10	..	5	7	13	280	23
Rachitic Manifestations	8	4	4	..	2	2	4	87	..
Anemia	27	7	20	2	1	..	24	406	..
Bronchial Catarrh	7	2	5	..	4	1	2	82	2
Cervical Adenitis	12	8	4	..	..	1	11	135	47
(Non-Tuberculous)									
Glandular Tuberculosis :—									
1. Tabes Mesenterica	2	1	1	..	..	..	2	18	24
2. Cervical	2	1	1	..	..	1	1	5	..
Impetigo Contagiosa	38	24	14	33	2	1	2	18	328
Alopecia-Ringworm	28	17	11	14	3	..	11	..	340
(Post X-Ray Treatment)									
Alopecia	6	2	4	3	..	..	3	11	38
Chilblains	5	1	4	..	1	..	4	40	69
Other Skin and Septic Conditions	10	5	5	3	2	1	4	49	104
Otorrhœa	2	1	1	..	1	..	1	10	9
Adolescent Goitre	1	..	1	..	..	..	1	..	33
TOTAL	173	88	85	55	21	14	83	1141	1017

TABLE 89.

ULTRA-VIOLET LIGHT CLINIC.

CHILDREN OF SCHOOL AGE REFERRED FROM OTHER SOURCES.

HEALTH DEPARTMENT, VICTORIA STREET.

Diagnosis.	No. of Cases Treated.			No. of Cases Discharged			No of cases attending at end of year.	Total number of exposures given to all cases attending.	
	Total.	Female.	Male	Cured.	Improved.	No Change		Carbon Arc	Merc. Vap
General Debility	6	2	4	..	1	..	5	79	..
Rachitic Manifestations	3	3	..	..	1	..	2	42	..
Anæmia	1	1	..	..	..	..	1	25	..
Cervical Adenitis	4	1	3	..	1	..	3	46	26
(Non-Tuberculous)									
Glandular Tuberculosis :—									
1. Tabes Mesenterica ..	11	6	5	..	1	..	10	201	33
2. Other Localisations ..	9	5	4	..	..	..	9	26	169
Tuberculosis of Bones, Joints, Skin, etc.	16	12	4	..	..	1	15	171	103
TOTAL	50	30	20	..	4	1	45	590	331

TABLE 90.

REFERRED FROM MATERNITY & CHILD WELFARE DEPARTMENT
CORPORATION HOSPITAL.

Condition	Cases		Cases Discharged						Still under Treatment		Average No. of Exposures in cases discharged as cured				No. of Exposure so far given to all cases attending		Ceased attending before completion of Treatment	
			Cured		Much Improved		No Change				Carbon Arc		Mercury Vapour		Carbon Arc	Mercury Vapour		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F			M	F
Rickets	2	5	-	-	-	-	-	-	1	3	-	-	-	-	64	12	1	2
Debility	4	1	-	-	-	-	-	-	1	-	-	-	-	-	21	-	3	1
Eczema	1	1	-	-	-	-	-	-	1	1	-	-	-	-	39	-	-	-
Bronchitis	-	1	-	-	-	-	-	-	-	1	-	-	-	-	12	-	-	-
TOTAL	7	8	-	-	-	-	-	-	3	5	-	-	-	-	136	12	4	3

REFERRED FROM TUBERCULOSIS DEPARTMENT.

Tub. Adenitis	5	3	-	-	2	1	-	-	2	1	-	-	89	-	44	497	1	1
Tub. Peritonitis ..	2	2	-	-	1	1	-	-	1	1	-	-	46	64	17	138	-	-
T.B. Hip	1	1	-	-	1	-	-	-	-	1	-	-	58	-	-	76	-	-
Tub. Spinal Caries.	1	-	-	-	1	-	-	-	-	-	-	-	12	-	-	12	-	-
Tub. of Knee	1	-	-	-	1	-	-	-	-	-	-	-	12	-	-	12	-	-
Lupus	5	1	-	-	4	1	-	-	1	-	-	-	121	62	-	848	-	-
Others	-	2	-	-	-	-	-	-	-	2	-	-	-	-	-	48	-	-
TOTAL	15	9	-	-	10	3	-	-	4	5	-	-	-	-	61	1631	1	1

TABLE 92.

SUMMARY.

CORPORATION HOSPITAL.

Complaint	No. of Cases	No. of Exposures	Type of Lamp used	Results of Treatment			Still under Treatment	Ceased before Completion of Treatment
				Cured	Much Improved	No Improvement		
Rickets	9	88	M. V. & C. A.	-	3	-	6	-
T.B. Adenitis	8	519	M. V.	-	2	-	4	2
T.B. Peritonitis	5	197	M. V. & C. A.	-	3	-	2	-
Lupus	9	842	M. V.	-	8	-	1	-
Anæmia	10	94	C. A.	-	1	-	9	-
Encephalitis	1	40	M. V.	-	-	-	1	-
Bronchitis	3	31	C. A.	-	-	-	3	-
Malnutrition	1	34	C. A.	-	-	-	1	-
Phthisis	1	6	M. V.	-	1	-	-	-
T.B. Spine	1	12	M. V.	-	1	-	-	-
Debility	40	494	M. V. & C. A.	2	28	-	6	4
Eczema	2	39	C. A.	-	-	-	2	-
Varicose Ulcers	1	12	M. V.	-	1	-	-	-
T.B. (Misc.)	3	101	M. V.	-	1	-	2	-
T.B. Knee	1	12	M. V.	-	1	-	-	-
Other Conditions.....	10	148	M. V. & C. A.	4	4	-	2	-
TOTALS	105	2669		6	54	-	39	6

C—Carbon Arc Lamp.

M—Mercury Vapour Lamp.

BACTERIOLOGICAL AND PATHOLOGICAL EXAMINATIONS.

Facilities are available for the examination of pathological and bacteriological specimens at the Corporation Hospital, at the Royal Infirmary, and at the Public Health Laboratories at Manchester and Liverpool.

The appended Table gives particulars of examinations carried out during 1930.

For particulars of work carried out at the Corporation Hospital Laboratory see Table 58.

TABLE 93.

<i>Nature of Test.</i>	<i>Royal Infirmary.</i>		<i>Liverpool University.</i>		<i>Manchester University.</i>		<i>Total.</i>
	<i>Pos.</i>	<i>Neg.</i>	<i>Pos.</i>	<i>Neg.</i>	<i>Pos.</i>	<i>Neg.</i>	
For Typhoid—Widal Test ..	—	—	—	—	4	12	16
For Gonococci—							
For Private Practitioners ..	—	—	—	—	4	32	36
For V.D. Clinic (B.R.I.) ..	221	595	—	—	—	—	816
For Spirochetes... ..	—	2	—	—	—	—	2
Wassermann Test—							
For Private Practitioners ..	—	—	—	—	57	175	232
For V.D. Clinics	—	—	—	—	129	377	506
	221	597	—	—	194	596	1608

Three samples of fæces and urine for typhoid, one of cerebro spinal fluid, four specimens of blood and two specimens of sputum from two suspected cases of psittacosis ; also post-mortem specimens of liver, kidney, spleen, and lungs for psittacosis, and seven specimens of blood, 18 fæces, five food, and two of vomit for cases of suspected food poisoning were submitted to the Public Health Laboratories, Manchester.

LOCAL GOVERNMENT ACT, 1929.

Since the above Act came into force the administration of the Vaccination Acts, and Part I of the Children Act, 1908, have devolved upon the Health Department. No special inspectors have been appointed for the purposes of Part I of the Children Act, the work being undertaken by the Health Visitors ; details of this work, visiting and supervision, are included in Part VII of this Report.

No Poor Law Services, for which duplicate powers exist, have been provided under the Special Acts set out in Section 5 (1) of the Local Government Act, 1929. It is not anticipated that medical services will be provided in the near future otherwise than under the Poor Law Act.

Prior to the transfer of functions from the Board of Guardians to the Town Council, arrangements to be made were considered by a special Sub-Committee of the General Purposes Committee. This Sub-Committee conferred with representatives of the Lay and Medical Boards of the Blackburn and East Lancashire Royal Infirmary, and discussed with them the hospital provision and requirements of the district.

MENTAL DEFECTIVES.

The Local Authority does not provide institutional accommodation for mental defectives.

I am informed that there are 35 cases in the Queen's Park Hospital which the Medical Officer of the Institution considers suitable to be dealt with under the Mental Deficiency Acts.

Fifty cases of mental deficiency from the Borough area are at present in the Calderstones Institution. Four of these are high-grade, 19 medium, and 27 low-grade.

NURSING IN THE HOME.

Domiciliary nursing of cases of Measles, Whooping Cough, Diarrhœa, Puerperal Fever, Ophthalmia Neonatorum, Influenzal Pneumonia, and Tuberculosis is undertaken by the District Nursing Association.

The Corporation pay the Association an annual retaining fee of £35 for these services, with an additional payment of 8d. per visit.

The appended Table gives particulars of the work carried out by the District Nursing Association in this respect during 1930 :—

TABLE 94.

HOME NURSING BY DISTRICT NURSES.

Disease	On books Jan. 1st 1930	New Cases	Cured	Died	Hospital	Remain- ing end of 1930	Visits
Tuberculosis	7	19	7	9	5	5	1552
Pneumonia	1	94	61	16	8	10	1720
Puerperal Fever and Pyrexia ..	1	5	5	..	1	..	152
Ophthalmia Neonatorum ..	..	8	8	..	..	..	158
Diarrhœa .. ..	..	1	1	..	..	..	7
Measles.. ..	..	23	23	..	..	..	385
TOTAL	9	150	105	25	14	15	3974

HEALTH EDUCATION.

During the year 43 lectures were given to audiences totalling 5,200.

LIST OF LECTURES GIVEN DURING 1930.

ROYAL SANITARY INSTITUTE SESSIONAL MEETING :

May 30, 1930 .. Discussion opened by Dr. J. J. BUCHAN, Medical Officer of Health, Bradford, on "The Re-Organisation of Poor Law Hospitals under the Local Government Act."

May 31, 1930 .. Discussion opened by the Borough Engineer (H. M. WEBB, Esq.), on "The Provision and Maintenance of Dustbins, Private or Municipal."

Address by the Medical Officer of Health (Dr. V. T. THIERENS) on "The Need for Further Legal Powers with respect to Ice Cream."

Lecturer :

Where Held and Title of Lecture :

Dr. McLACHLAN	Labour Women, Cort Street : "Public Health Service, Its Function in Prevention of Diseases."
Dr. V. T. THIERENS ..	"Young People's Fellowship, Audley Range Congregational Church : "Prevention of Infectious Disease."
Dr. V. T. THIERENS ..	Blackburn Medical Society : "Immunity Methods <i>re</i> Diphtheria Prevention."
Dr. J. S. WHITE,	Lecture and Cinematograph Demonstration on "Some Recent Aspects of Biological Therapy," at Health Office.
Mr. BURNDRED	Labour Women, Cort Street : "Clean Milk."
Mr. J. A. SHAW	Labour Women, Cort Street : "Cleanliness from the Standpoint of a Sanitary Inspector."
Mr. BURNDRED	Blackburn and District Retail Confectioners' Association : "Ice Cream."
Dr. E. MACKENZIE	Labour Women, Cort Street : "Scope and Possibilities of Maternity and Child Welfare Work in Blackburn."
Dr. V. T. THIERENS ..	St. Thomas' Mothers' Union, Wescoo Memorial Hall ; "Personal Responsibility in the Prevention of Infectious Disease."
Mr. BURNDRED	Blackburn Women's Adult School : "Clean Milk."
Dr. HUNTER	St. Bartholomew's Mothers' Union : "Diphtheria Prevention."
Dr. McLACHLAN	St. Philip's Mothers' Union : "The Work of a Public Health Department."
Dr. V. T. THIERENS ..	Park Road Girls' Guild : "Diet and Efficiency."

<i>Lecturer :</i>	<i>Where Held and Title of Lecture :</i>
Dr. J. W. HUNTER	.. St. Stephen's Mothers' Union and G.F.S. : " Diphtheria Prevontion."
Dr. V. T. THIERENS	.. Allianco of Honour, Men's Mass Meeting : Film, " The Gift of life."
Dr. V. T. THIERENS	.. Lower Darwon Council School : " Prevention of Disease."
Dr. V. T. THIERENS	.. Labour Club : " Tho Work of a Public Health Department."
Dr. A. A. GEMMELL	.. Local Midwives : " Injuries of the Birth Canal : their prevention and sequelæ."
Dr. V. T. THIERENS	.. Film at Salvation Army Hostel : " Venereal Diseases."
Dr. V. T. THIERENS	.. C.E. Central School (Boys').
Dr. V. T. THIERENS	.. Accerington Road Senior School.
Dr. V. T. THIERENS	.. St. Andrew's Mixed School.
Dr. I. M. McLACHLAN	.. C.E. Central Girls' School.
Dr. V. T. THIERENS	.. St. Thomas' Junior and Infants' School.
Dr. V. T. THIERENS	.. St. Paul's Senior School.
Dr. J. W. HUNTER	.. Griffin C.E. Mixed School.
Dr. I. M. McLACHLAN	.. Cedar Street Infants' School.
Dr. V. T. THIERENS	.. St. Luke's Mixed and Infants' School.
Dr. V. T. THIERENS	.. Mill Hill C. Junior School.
Dr. I. M. McLACHLAN	.. Christ Church Infants' School.
Dr. I. M. McLACHLAN	.. Cedar Street Junior School.
Dr. V. T. THIERENS	.. Accerington Road Open Air Class.
Dr. I. M. McLACHLAN	.. St. Stephen's School.
Dr. I. M. McLACHLAN	.. Holy Trinity Senior School.
Dr. V. T. THIERENS	.. St. Barnabas' Mixed School.
Dr. J. W. HUNTER	.. Bangor Stroet Senior School.
Dr. V. T. THIERENS	.. St. Joseph's Infants' and Girls' School.
Dr. I. M. McLACHLAN	.. Wensley Fold C.E. School.
Dr. I. M. McLACHLAN	.. Park Road Infants' School.
Dr. J. W. HUNTER	.. St. Bartholomew's Infants' School.

Two thousand copies of the Magazine *Better Health* are distributed monthly in Blackburn. Each copy contains an article specially written by a member of the Health Department staff.

PREVENTION OF BLINDNESS.

PUBLIC HEALTH ACT, 1925, SEC. 66.

Beds are provided at the Corporation Hospital for the reception of selected cases of ophthalmia neonatorum; the District Nursing Association, under agreement with the Corporation, undertakes the domiciliary nursing of ophthalmia neonatorum, and during the year nursed 8 cases, to which 158 visits were paid.

A special school, at Roe Lee, for the care of children suffering from severe visual defect, which was opened during the year, provides accommodation for 20 children. It is anticipated that the available accommodation will be increased to 40 places during the present year.

WELFARE OF THE BLIND.

THE BLIND PERSONS ACT, 1920, SEC. 2, SUB-SECTION 1.

The Local Authority has made provision for the welfare of the blind through two voluntary agencies, the Blackburn Workshops for the Blind and the Blackburn and Darwen Home Visiting Society.

In 1930 the Blind Persons Scheme cost the Corporation £2,913, allotted as under :—

Workshops for the Blind	...	...	...	...	£1,128.
Visiting Society	...	...	...	...	£383.
Other Blind Agencies	...	...	...	...	£271.
Grants to unemployable necessitous persons	...				£1,131.

In addition to the above grants the Workshops received £1,302 and the Visiting Society £263 from the Joint Finance Committee for the Blind. This Committee is composed of representatives from the Local Authorities whose districts are served by the Workshops and Visiting Society. Its function is to organise and co-ordinate the raising of voluntary funds for the Blind.

The Blind Register contains particulars of 276 blind persons resident in Blackburn.

Arrangements are now in hand whereby the Workshops, at present administered as a voluntary organisation, are to be transferred to the Blind Persons Act Committee.

Two additional Home Teachers have been appointed by the Visiting Society during the year. Two home teachers now devote the whole of their time to work in the Borough, and the remaining two to duties in the Administrative County Area.

TABLE 95.

METEOROLOGY, 1930.

Corporation Hospital Station, Height 560 feet.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.
Amount of Bright Sunshine...	36 30	46 25	76 55	65 10	168 35	176 35	112 15	136 5	79 55	93 30	44 10	11 5	1047 10
Average per day	1 10	1 39	2 29	2 10	5 26	5 53	3 37	4 23	2 39	3 1	1 28	0 21	..
hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.
Maximum amount in one day.	4 40	8 0	7 20	12 30	13 0	13 40	11 20	12 25	10 50	8 30	7 10	3 50	..
Total Rainfall (in inches)....	5.38	0.48	2.62	2.45	1.67	2.95	6.86	8.47	3.00	5.50	6.215	4.08	49.675
No. of days on which rain fell.	23	8	19	18	17	15	23	26	19	28	21	22	239
Av. Temp. at 9 a.m. (Fahr.)...	39.1	34.7	38.85	44.3	48.9	56.2	57.1	56.95	54.05	48.1	41.1	38.15	—
Temp. of earth at depth of 1 ft.	39.8	35.7	38.1	43.7	49.7	55.8	57.2	57.6	56.7	50.1	43.2	40.3	—
Temp. of earth at depth of 4 ft.	41.5	40.2	39.2	41.8	45.8	51.3	54.3	55.4	56.0	52.5	47.9	44.1	—
Highest Temp. in Shade	52.0	44.0	53.5	60.5	65.5	85.0	75.5	87.0	69.0	62.0	55.0	51.0	—
Lowest Temp. in Shade	27.0	22.5	20.0	31.0	31.0	41.0	45.0	44.0	40.0	35.0	24.0	23.0	—
Av. Temp. Sun (black bulb)...	74.0	69.0	79.0	112.0	108.0	125.0	125.0	122.0	115.0	98.0	88.0	50.0	—
Lowest Temp. on Grass	25.0	20.0	16.5	27.0	26.0	37.0	41.0	41.0	34.5	29.0	21.0	23.0	—
Highest cor. reading of barom.	30.115	30.716	30.490	30.150	30.198	30.252	30.207	30.130	30.364	30.354	30.541	30.504	—
Lowest cor. reading of barom.	28.923	28.785	29.050	29.345	29.273	29.557	29.245	29.246	28.702	29.029	28.700	29.117	—
Mean reading of barometer... (uncorrected)	29.063	29.539	29.223	29.265	29.452	29.396	29.244	29.261	29.327	29.200	29.197	29.290	—

LOCAL POWERS RELATING TO PUBLIC HEALTH.

1.—BLACKBURN CORPORATION ACTS AND ORDERS :—

The Blackburn Improvoment Act, 1882.
 The Blackburn Water Act, 1885.
 The Blackburn Corporation Act, 1892.
 Local Government Board's Provisional Orders Confirmation (No. 14) Act, 1894.
 Local Government Board's Provisional Orders Confirmation (No. 18) Act, 1897.
 The Blackburn Corporation Act, 1901.
 The Blackburn Corporation Act, 1908.
 Local Government Board's Provisional Orders Confirmation (No. 9) Act, 1910.
 The Blackburn Corporation Water Act, 1911.
 Local Government Board's Provisional Orders Confirmation (No. 1) Act, 1919.
 The Blackburn Corporation Act, 1922.
 The Blackburn Corporation Act, 1929.

2.—ACTS OF PARLIAMENT ADOPTED BY THE COUNCIL :—

Parts II. & III. of the Public Health Acts (Amendment) Act, 1890, adopted by the Town Council, 2nd April, 1891.
 INFECTIOUS DISEASES (PREVENTION) ACT, 1890, adopted by the Town Council (except Sections 14 and 19), 5th March, 1891.
 Part III. of the Housing of the Working Classes Act, 1890, adopted by the Town Council, 5th August, 1897.
 Public Health Acts Amendment Act, 1907 : Certain sections adopted by Orders of the Local Government Board on the 5th December, 1908 ; 5th January, 1910 ; and by Order of the Secretary of State, dated 27th October, 1909.

3.—BYE-LAWS AND REGULATIONS IN FORCE IN THE BOROUGH :—

General Bye-Laws, dated 12th January, 1855.
 Bye-Laws for Regulation of Private Slaughterhouses, 25th October, 1877.
 Regulations for Prevonting Waste, Misuse, or Contamination of Water, 17th December, 1887.
 Bye-Laws *re* Common Lodging Houses, 6th September, 1888.
 Bye-Laws made under the Contagious Diseases (Animals) Act, 1878 to 1890, and the Dairies, Cowshods, and Milkshops Orders of 1885 and 1886, 5th July, 1893.
 Bye-Laws *re* Houses Let in Lodgings, 4th April, 1895.
 Bye-Laws for Regulation of Offensive Trades, 4th March, 1897.
 Bye-Laws with Respect to Management and Charges for Slaughterhouses Established by the Council, 20th March, 1901.
 Bye-Laws for the Prevention of Carrying Carcases through the Streets, 25th April, 1901.
 Bye-Laws *re* Cattle Markets, 1st June, 1905.
 Regulations made under the Diseases of Animals Acts, 1894 to 1903 and Lancashire (Parasite Mange) Order, of 1908, 9th February, 1910.
 Regulations made under the Diseases of Animals Acts and Glanders or Farcy Order of 1920, 17th February, 1921.
 County Borough of Blackburn Offensive Trades Confirmation Order, 1922, declaring Rag and Bone Dealing to be an Offensive Trade.
 Bye-Laws *re* Tents, Vans, Sheds and Similar Structures, 15th May, 1924.
 Bye-Laws *re* Houses Let in Lodgings, 20th June, 1924.

MINISTRY OF HEALTH ORDERS, Etc., 1930.

STATUTES :—

Poor Law Act, 1930.

10/7/30. Mental Treatment Act, 1930.

1/8/30. Housing Act, 1930.

REGULATIONS :—

No.	69	..	6/2/30	..	The Local Government Act (Qualifications of Medical Officers and Health Visitors) Regulations, 1930.
No.	39	..	20/1/30	..	The Registration (Births, Stillbirths, Deaths and Marriages) Regulations, 1930.
No.	299	..	24/4/30	..	Psittacosis. Parrots (Prohibition of Import) Reg., 1930.
No.	572	..	8/7/30	..	The Public Health (Tuberculosis) Regulation, 1930.
			19/8/30	..	Housing Act, 1930 (Provisional) Regulation.
			.. 24/11/30	..	Provisional Regulations — Census Act, 1920.

ORDERS :—

No.	2	..	3/1/30	..	The Vaccination Order, 1930.
No.	224	..	28/3/30	..	The Merchandise Marks (Imported Goods) No. 1 Order, 1930
No.	4	..	17/12/29	..	„ „ „ Order, 1929.
No.	525	..	13/6/30	..	„ „ „ No. 4 Order, 1930
No.	526	..	13/6/30	..	„ „ „ No. 3 Order, 1930
No.	527	..	13/6/30	..	„ „ „ No. 4 Order, 1930
No.	560	..	20/6/30	..	„ „ (Exemption Directions) No. 3, 1930
No.	566	..	26/6/30	..	„ „ Imported Goods) No. 5 Order, 1930.
No.	660	..	28/7/30	..	„ „ „ No. 6 Order, 1930.
No.	886	..	27/10/30	..	„ „ „ No. 7 Order, 1930.
No.	887	..	27/10/30	..	„ „ „ No. 8 Order, 1930.

CIRCULARS :—

No.	1065	..	8/1/30	..	Treatment of Ex-Servicemen Suffering from Tuberculosis.
No.	1081	..	11/2/30	..	Psittacosis.
No.	1072	..	12/2/30	..	Local Government Act, 1929.
No.	1068	..	9/1/30	..	Public Vaccination—Local Government Act, 1929.
No.	1065a	..	8/1/30	..	Treatment of Ex-Service Men Suffering from Tuberculosis.
No.	1086	..	21/3/30	..	Local Government Act, 1929—Welfare of Blind Persons.
No.	1086a	..	21/3/30	..	„ „ (Section 102 (1) „).
No.	1108	..	28/4/30	..	Psittacosis. Parrots (Prohibition of Import) Reg. 1930.
No.	1107	..	16/7/30	..	Public Health (Tuberculosis) Regulations, 1930.
No.	1139	..	19/8/30	..	Housing Act, 1930.
No.	1138	..	19/8/30	..	„ „
No.	1142	..	4/9/30	..	Annual Statistical Review of the Registrar General for England and Wales.
No.	1145	..	20/9/30	..	Local Government Act, 1929—Survey and Scheme under Section 13 for the Provision of Hospital Accommodation for Infectious Disease.
No.	1153	..	31/10/30	..	Housing Act, 1930.

MEMORANDA :—

- Memo. 146T .. Arrangements for the Provision of Residential Treatment and other services relating to Tuberculous Ex-Servicemen in England, so far as chargeable to Ministry of Pensions.
- Memo. 151 Med... Psittacosis.
Memorandum on Housing Act, 1930.
- Memo. 154/RG. .. Annual Statistical Review of the Registrar General for England and Wales.
- Memo. LGA 40 .. Survey and Scheme under Section 13 for the Provision of Hospital Accommodation for Infectious Disease.
Local Government Act, 1929—Welfare of the Blind.

MINISTRY OF AGRICULTURE AND FISHERIES.

- No. 9 .. 9/1/30 .. The Sheep Scab (Amendment) Order, 1930.
- No. 785 .. 19/9/30 .. The Foot and Mouth Disease Order, 1930.
- No. 922 .. 4/11/30 .. The Animals (Importation) Order, 1930.
- No. 923 .. 4/11/30 .. The Animals (Sea Transport) Order, 1930.
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